ARITEX DEVEL. #2 FEE STRAT SE NE 6-17N-21E NAVAJO CO. **532**

sl

OUNTY Nava	jo	AREA	1/2 [ni. E.Hol	brook LEASE NO.	Gerwitz Fee		
ELL NAME ARIT								
OCATION SE NE	SEC	6 TW	7P	RANGE	21E FOOTAGE 433	39' FWL 2542 FNL		
CLEV <u>5077</u> GR					SIMIOS TOW	TOTAL 17-70 DEPTH 1140'		
CONTRACTOR 3	ewell Adkis	on, Albu	querque	e, New Me	exico			
CASING SIZE	DEPTH CI	MENT]	LINER S	SIZE & DE	EPTH DRILLED BY	ROTARY x		
9 5/8" 185' 125 SK NA DRILLED BY CABLE TOOL								
7"						RESERVOIR		
		 _			INITIAL PRO	DUCTION dry hole		
			SOUR	CE				
FORMATION TO	PS DEP	гнѕ	L.L.	E.L.	REMARKS	10070		
Coconino	130		<u>X</u>	X	Verbal Permission G	iven to Spud 3-9-70		
Supai	773			 	Chart of project is	in Red Folder. See		
Top Salt		1				his file in manilla file.		
Base (Massive) 10/0				EXHIBIT I G II III C	illy fact an investment and a		
					·			
ELECTRIC LOGS		1		NTERVALS		SAMPLE LOG SAMPLE DESCRP. ×		
Gamma Ray-2, El Interface Surve	ectric Log		NA		NA NA	SAMPLE NO. 1621		
THE COLUMN TO TH	·	 			 	CORE ANALYSIS		
		-			_	Tucson 2570		
REMARKS						APP. TO PLUG ×		
				·····		PLUGGING REP. ×		
						COMP. REPORT ×		
WATER WELL ACC	EPTED BY							
BOND CO.	United Sta	tes Fidel	ity &	Guaranty	BOND NO.	29-0130-153-70		
BOND AMT. \$	5,000	CANO	CELLED		DATE ORGANIZATIO	N REPORT 3-2-70		
FILING RECEIPT	2866	LOC.	PLAT	x	WELL BOOK >	PLAT BOOK x		
API NO. 02-0	17-20004	DAT	E ISSUI	ED <u>3-11-</u>	70 DEDICATION	Strat		
PERMIT NUMBER	532			(over	·)			

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Eh-

DRILL STEM TEST

RESULTS

NA

CORE RECORD

RECOVERY REMARKS

cut 45' rec. 45' salt clear to dk red color xln, 10% red sh. incl
pink grainy xln soft clean / clear with 20% red
brown sh incl anhy gray-brn fixln dns.

cut 60' rec 60' salt clear w/approx 40% red powderyshale

REMEDIAL HISTORY

DRK PERFORMED

NEW PERFORATIONS TO NO. FROM FROM TO NO. 1050 1005 1 1050 1110 DATE STARTED - COMPLETED ADDITIONAL INFORMATION

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	w	ELL CO	UNPLETIO	N OR I	RECOMPLI	ETION RE	PORT AND	WELL	LOG		
			1	andiemo	TE TYPE O	F COMPLET	TION:				
New Ov	ork-	Deep		Pius Back	Barne Recerv		Different Reservoir	O11		Gas	Dry 🗌
				DESCRIP	TION OF V	VELL AND	LEASE				
)perator	-					Address					2422
ritex Deve	<u>-lopme</u>	ot Co	rporatio	m						Arizo	ma 86025
ederal, State or I	idian Lease	Nawper	or name of I	essor if fe	e lease	Well Number	i	Reservo	ır		
Aritex Fee	Strat_					<u>No. 2</u>					
Location						Count	у _.				
SE/4 of N											
Sec. TWP-Range o											
Section 6,	<u>T17N</u>				\	-2	Elevation			Mevatio	a of casing
Date spudded	1		tal depth res	iched 1	completeroduce	ed' Leway, ro	(DF, RKE	, RT or (Jr.)	M. San	080 tee
3/8/1970			//1970			r triple com		•			
Total depth	.	P.B.T.D	<i>)</i> .	*	ingie, duar c	er tubié com	Marien	furn	sh sepe	rate repo	ple completion, it for each com-
1,140 fee						Roters too	a used (inter			tools nee	(interval)
Producing interva	7 (8) 105 (9)	m combi	ICON			compl				None	· ·
Was this well dis		. او الــــــــــــــــــــــــــــــــــ	Wan Almantin	nel en-	made?		erery f directional s	UFVEY	Date		
	ennement o				,	# # # # # # # # # # # # # # # # # # #	Vo		}	_	
Type of electrics	l or other	OER PUP	(check logs		the commis		1		Date	flied .	
"Abu or stonering										_	
	Radio	vact1\	/ 3 L X		CASING	RECORD	-			•	
Casing (report a	li strings =	et in we	all-conductor	r, surface.			, etc.)	· · · · · · ·			
Purpose		le drille		asing set		(lb./ft.)	Depth set		soks ce	ment	Amt. pulled
Surface	13-1	/4"	9-5	/811		32	1851	_	125		
-	8-3	3/4"	7			20	1.1391		200		
	1										
	TUBING RI	CORD					LINER	RECORI			
Sixe	Depth set	• [Packer set at	t Sise		Top	Better			dement	Screen (ft.)
None in	<u> </u>	ft.		st.	in.	<u> </u>	ft.	ft.	•	THE SOUTH	EXP RECORD
			N RECORD	pth Inter	1		kind of mater		1		Interval
Number per ft.	Size &	450		PLE INCE	· 	A			_		
									_		
		l				<u> </u>			<u> </u>		
						BODUCTION	-				
Date of first pr	oduction		Producing n	nethod (in	dicate if flo	wing, gas lif	t or pumping-	if pump	ng, and	W #250 @	type of pump:)
None			<u></u>	00		1 Can pend	during test	i Water 1	mend Am	ring test	Oli gravity
Date of test	Hrs. testad	Ch	oke size	On proa.	during test	Gas proc.	MCF	,	,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	bbls.	AFI (Co
Tubing pressure	. i Casta	r pressu	- Colta	A rate of P			Gas	1 🔻	/ater	·	Gas-oli ratio
THE DESCRIPTION	Camping	. Dieser	ductio	drate of P	hrs.	bble.		MCP		bble.	1
	1		ented pred f	or fuel or	sold):			'		 	
	as (state W			••							
Disposition of g	as (state w	Herbet A									سيستريب تسران والمستون والمستون
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Disposition of g				alty of per	jury, state th	at I am the.	Pres	ident			of th
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(Complete Reverse Side)

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DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
	1001	7771	
Coconino	130'	773'	
Supai	7731		<u>.</u>
First Salt	1,052	- A. C.	
(Massive), Base	1,070		
Total Depth	1,140		
·			
·			

^{*} Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Weil Completion or Recompletion regulated well log shall be filed with the State of Arizon will a Gaz Conservation Commission not later than thirty days after project completion. thirty days after project completion.

Form No. 4

PLUGGING RECORD Address P. O. Box 36117, Houston, Texas 77036 Aritex Development Corporation Field & Reservoir Well No. Federal, State, or Indian Lease Number, or lessor's name if fee lease. Aritex #2 Fee Strat None 2 Sec-Twp-Rge or Block & Survey County Location of Well Navajo Section 6 T17N R21E SE/NE Character of well at completion (initial production):
Oil (bbls/day) | Gas (MCF/day) | Application to drill this well was filed in name of Has this well ever produced oil or gas Dry? Oil (bbls/day) yes Aritex No Amount well producing when plugged:
Oil (bbls/day) | Gas (MCF/day) Total depth Date plugged: Water (bbls/day) Qil (bbls/day) 1098 July 24, 1973 Size, kind & depth of plugs used Indicate zones squeeze comented, giving amount cement Depth interval of each formation Fluid content of each formation Name of each formation con-taining oil or gas. Indicate which formation open to well-bore at time of plugging None CASING RECORD Left in well (ft.) Give depth and method of parting casing (shot, ripped, etc.) Packers and shoes Put in well (ft.) Pulled out (ft.) 1000' + **A11** None Indicate deepest formation containing fresh water. Was well filled with mud-laden fluid, according to regulations? Approximately 700! Yes, cement NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE Direction from this well: Name None In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required. Completely Plugged Use reverse side for additional detail. President CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the_ Aritex Development (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge. August 2, 1973 RECEIVED AUG U 6 1973 STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION

Plugging Record

File One Copy

Form No. 10

Permit No. 532

O & G CONS. COMM.

WW

APPLICATION TO ABANDON AND LUG

OPERATOR Aritex Development Corporation Al Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease Aritex Fee Strat	ODRESS P. O. Box 36117, Houston, Texas WELL NO. 2
LOCATION SE/NE Section 6 T17N R21E	
Navajo County TYPE OF WELL Strat Test - Dry (Oil, Gas or Dry Hole)	TOTAL DEPTH 1100
ALLOWABLE (If Assigned) None LAST PRODUCTION TEST OIL None GAS None	(Bbls.) WATER None (Bbls.) (MCF) DATE OF TEST None
PRODUCING HORIZON None P	RODUCING FROMTO
1. COMPLETE CASING RECORD.	
7" Casing completely cemented from	1 1100' to surface.

2. FULL DETAILS OF PROPOSED PLAN OF WORK.

Will put Halliburton cement baskets (2) on bottom two joints of 4" tubing, weld cap on bottom of 4" tubing, then lower 870' of 4" into 7" casing.

Poured one (1), yard of cement into hole on July 21, 1973, to allow cement baskets to set, then filled both 4" and 7" completely full of cement.

Date Commencing Operations	July 20, 197		117 - Houston Texas
RECEIVED AUG U to 1973	Title	President P. O. Box 36117	
O & G CONS. COMM.	Date	Houston, Texas 77036	
Date Approved 8-6-73 STATE OF ARIZONA OIL & GAS CONSERVATION CO	OMMISSION	STATE OF ARIZONA OIL & GAS CONSERVATION CO Application to Abandon and I File Two Copies Farm No. 3	MMISSION
Permit No. 532			

January 20, 1972

Memo to Airtex Development #1 Fee Strat NE/SE Section-6-17N-21E Navajo Country File #530

> Airtex Development #2 Fee Strat SE/NE Section 6-1%N-21E Navajo County Our File #532

Memo from W. E. Allen, Director Enforcement Section

Air-Tex LPG Storage project was visited on January 18, 1972. The gates entering the location was locked, and hade been for some time. The salt water ponds are all completely dry. The phone number for Air-Tex as indicated on a sign at the entrance to the location is no longer in service.

3550000

er.

SUNDRY NOTICES AND	REPORTS ON WELLS
1. Name of Operator ARITEX DEVELOPA	nent Corp
2. OIL WELL GAS WELL OTHER (Specify, PRODANE STORAGE
3. Well Name # / FCE STRAT	
Location HoLLROOK Arizoni	9
Sec. 6 Two 17N Bee.	2/C County NAVATO Arizona.
4. Federal, State or Indian Lease Number, or lesson's name if fee lease	
5. Field or Pool Name	
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other L	kata
NOTICE OF INTENTION TO: Judine 4/2	SUBSEQUENT REPORT OF:
FRACTURE TREAT DIRECTIONAL DRILL, F SHOOT OR ACIDIZE PERFORATE CASING S BEPAIR WELL CHANGE PLANS	VATER SHUT-OFF MONTHLY PROGRESS PRACTURE TREATMENT REPAIRING WELL ALTERING CASING ABANDONMENT OTHER)
- · · · · · · · · · · · · · · · · · · ·	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
 DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state starting any proposed work. If well is directionally drilled, give subsurf zones pertinent to this work.) 	all pertinent details, and give pertinent dates, including estimated date of
_	
PLANS ARE TO PULL	- 4/2" TubINE From
well And LAY down -	The Second Phase
of This WORKOVER WILL	The Second Phase Be To have Schlumberger
J' Tuen Tem DER Ature	2 SURVEYS FOR COMPANISON
Aud Cotton Study	915 15 The Extent of
This WORKOVER. The C	Immission will be moused
of ANY future well	ED MARK TOURECT RECEIVED
APPROX	ED RECEIVED
in U.S. Q	Que RECEIVED
Bale 8-17-7	AUG 1 (15) (
8. I hereby certify that the foregoing is true and curred	O & G CONS. COMM.
Signed Thomas Oruches	Mar Dag 15 HI
	Date J.J.
Permit No. 532	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells File Two Copies Form No. 25
A	

August 13, 1971

Memo from Mr. W. E. Allen

Re: Airtex Development Corporation #2 Fee Strat SE NE 6-17N-21E Our file #532

Tom Martin called this date to advise that they were planning to install the 4 1/2" tubing and packer in this well and run a temperature survey to locate a leak in the 7" casing. When and if this leak is located, they will then decide to take action. We are sending Mr. Martin a supply of Form 25. We have instructed to detail his work plans on this form and send two copies to this office for our approval.

WEA/rlb

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Aritex Development Corpo	ration
2. OIL WELL GAS WELL OTHER G	(Specify) Brine Well
3. Well Name Aritex No. 2 Fee Strat	
SE/4 of NE/4 of Section 6	
Sec. 6 Twp. 17N Rrc. 2	1E County Navajo Arizona.
4. Federal, State or Indian Lease Number, or lessor's name if fee lease	Aritex
5. Field or Pool Name None	
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other	r Data
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF PULL OR ALTER CASING FRACTURE TREAT DIRECTIONAL DRILL SHOOT OR ACIDIZE PERFORATE CASING REPAIR WELL CHANGE PLANS (OTHER)	WATER SHUT-OFF MONTHLY PROGRESS FRACTURE TREATMENT REPAIRING WELL SHOOTING OR ACIDIZING ABANDONMENT (OTHER)
-	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
On May 8, 1971, a well log was run to indicated probability of 3' to 4' of propadate four (4) 7/16" shots were made in only slight propane recovery. So four 944'. After these shots there was defined	try to find evidence of propane in well. Log ane between depth of 942' to 946'. On same 1'-0" interval at 942' to 943'. There was (4) more 7/16" shots were made at 943' to nite propane recovery. On May 14, 1971, ne was recovered into a tank truck and e afternoon. RECEIVE
3. I hereby certify that the foregoing is true and curreel. Signed A B & Charles	Title President Date June 9, 1971
Permit No. 532	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells File Two Copies Form No. 25

May 17, 1971

Memo from W. E. Allen

Memo to: Aritex Development #1 Fee Strat NE/4 SE/4 Sec. 6-T17N-R21E Navajo County Our File #530

and

Aritex Development #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E ** Navajo County Our File #532

On May 10 I requested that Tom Martin attempt to have Eagleton forward to this office the requested completion reports and logs on their two storage wells. Martin assured me that he would contact Eagleton either the night of the 10th or the 11th and have this information forwarded to this office as soon as possible.

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March 8, 1971

Memo from W. E. Allen, Director Enforcement Section

Memo to: Aritex #1 Fee Strat NE/4 SE/4 Sec. 6-T17N-R21E Navajo County

Our File #530

Aritex #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Navajo County Our File #532

Aritex has enlarged their reservoir to give it a storage capacity of 5,100,000 gallons. At the time I visited this location on February 25, they were awaiting a consultant from Tulsa to pressure test the reservoir.

September 8, 1970

Memo from W. E. Allen
Director-Enforcement Section

Memo to Aritex Development #1 Fee Strat
NE SE 6-T17N-R21E
Navajo County
Our File #530
and
Aritex Development #2 Fee Strat
SE NE 6-T17N-R21E
Navajo County
Our File #532

Called Tom Martin to inquire as to their present operations and also the extent of damage, if any, caused his operation by the recent torrential rains. Apparently, Aritex suffered no damage to their operation other than the loss of one small electric motor. Their evaporating pits withstood the rains in good KAKK shape. The roadshave been completely washed out going to this location.

At the present time Mr. Martin is still awaiting orders as to just what procedure will be followed in recovering additional butane that has been injected into the formation.

e

August 17, 1970

Memo from W. E. Allen

Memo to Aritex Development #1 Fee Strat NE/4 3E/4 3ec. 6-T17N-R21E Navajo County Our File #530

and

Aritex Development #2 Fee Strat 3E/4 NE/4 Sec. 6-817N-R21E Navajo County Our File #532

Called Tom Martin with Ragleton Engineering to determine the progress they were making in their operations. French Well Logging Service from Houston arrived on location on the 15th to run Density Logs in an effort to MAM pick the water-gas contact point in the storage reservoir. Han log on the #1 well and perforated casing at the indicated water-gas contact point. Only a small amount of butane recovered. Ran log on the #2 well. Water-gas contact point indicated on log; however, the casing was not perforated. All logs were sent to Houston for interpretation by French Engineers, McCullough, Dowell, and Eagleton Engineers. After studying the logs, a decision will be reached as to what action to take.

There was a total of 240,000 gallons of butane injected into the reservoir initially and only 40,000 gallons recovered. Mr. Martin is of the opinion that there is a capity around the casing in the #2 well that is holding all the KK unrecovered gas.

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August 12, 1970

Memo from W. E. Allen

Memo to Aritex Development #1 Fee Strat NE/4 SE/4 Sec. 6-T17N-R21E Navajo County Our File #530

and

Aritex Development #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Mavajo County Our File #532

Visited with Tom Martin and discussed this operation. The storage reservoir had been pressure tested for 50 hours. The tests proved O. K. LPG was then injected. The recovery of LPG proved disappointing. Martin thinks the gas is in the portion of the cavity that is above the casing and will remain as dead storage. To prove this assumption, a Density Log will be run to establish the gas—water contact and then the casing will be perforated above this contact point and the gas will be displaced. A logging unit is being sent from Houston, Texas, to run the logs. They are expected on location sometime Saturday, August 15, 1970.

I informed Martin that we would require Form 24, Transporter's and Storer's Monthly Report, to be filed on their operations each month. I had one copy of the report with me which I left with Martin. He requested that a supply of these forms be sent to Houston. Eagleton Engineering will file the reports for the first few months of operation.

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(, :

July 15, 1970

Memo from W. E. Allen

Memo to Aritex Development #1 Fee Strat NE SE Sec. 6-T17N-R21E Navajo County Our File #530

and

Aritex Development #2 Fee Strat SE NE Sec. 6-T17N-R21E Navajo County Our File #532

Jim Scurlock and I visited the Aritex location. We discussed this operation in detail with Tom Martin of Aritex. Aritex is waiting for an electrician to connect the pump that will keep the suction on their main LPG injection pump charged. When this pump is installed, the hydrostatic pressure on the reservoir will be checked. If the pressure stabilizes, which Tom is sure it will, they will inject LPG for a trial run. If everything proves O.K., following testing they will start storing LPG for Suburban Gas Company.

Aritex is attempting to acquire more land immediately west and south of their present site for space and a railroad siding.

Mr. Martin assured us that he would keep us informed. Their entire location was clean and all equipment freshly painted.

O

C.

206 CENTURY BLDG.

i dinakii

RESIDENCE 247-3190

ROBERT E. LAUTH GEOLOGICAL CONSULTANT P. O. BOX 776 DURANGO, COLORADO 81301

ARITEX DEVELOPMENT CORP. HOLBROOK-PROPANE STORAGE WELL NAVAJO COUNTY, ARIZONA

COMPLETION REPORT

WELL AND LOCATION:

No. 2 Fee-Strat

Section 6, Township 17 North, Range 21 East 4340 feet from West line

2543 feet from North line

ELEVATION:

Ground: 5077.5 feet

CONTRACTOR:

Jewell Adkison Drilling Co.

Albuquerque, New Mexico

COMMENCED:

March 8, 1970

DRILLING COMPLETED:

March 17, 1970

TOTAL DEPTH:

Driller: 1140 feet Welex: 1139% feet

CASING:

9 5/8" at 185 feet with 125 eacks regular

cement

7" at 1139 feet with 200 sacks with 2% CaCl

and 6% Gel in top 75 sacks; circulated

LOGGING:

Samples: Bagged: 40 to 1005 feet

1110 to 1140 fest Described: all of above Cores: 1005 to 1110 feet

Disposition of Samples

& Core Chips: Four Corners Sample Cut 641 West Broadway Farmington, New Mexico

Cores were boxed and stored in J. S. Baldry's garaga

Drilling time (5 foot stick) 185 - 1005 ft. 1110 - 1140 ft.

1 foot core time 1005 - 1110 ft.

Machanical Log (Walex)

Redicectivity Log: 0 - 1138 ft.

¥ 632

FORMATIONS:

FORMATION	LOG TOP	LOG DATUM
PERMIAN		
Coconino as.	1301	(+) 4948
Supai fm.	773'	(+) 4305
First Salt Bed, Top:	10521	(+) 4026
(Maseive), Base:	יטלטו	(+) 4008
TOTAL DEPTH	11401	

DEVIATION RECORD: TOTCO SURVEY:

735' - 16°

BIT RECORD:

Surface Sit 12%" to 185 feet

Bit 1. 8%" Hughes AY998, 185 to 735 feet 550 feet

Bit 2. 8%" Security M4L, 735 to 1005 feet2270 feet

Cored 6%" Christensen Dismand Bit 1005 1110 - 105 feet

Bit 3. 8%" Chicago Pnaumatic EH-1
Resmed 1005 - 1110

Drilled 1110 - 1140 - 35 feet

3

DRILLING:

No major or serious drilling problems were encountered. The drill pipe twisted off et the weld just below the box at 735 feat. A center spear tap was run which caught and removed the fish in a short time. The hole was drilled with fresh water gal-chem mud to a depth of 865 feet. Some minor lost circulation of mud occurred at 865 feet presumably in the porous upper Cocoming send. This was effectively sealed with some lost circulation material. From 865 feet to total depth a weighted diesel-Invermul mud was used. A 8.7 lbs/gal weight and a viscosity of 41 cps was maintained to total depth. All free water was chemically bound in an emulsion so that any selt drilled would not be washed out of the samples, cores or the aides of the well bore. Coring and mechanical logging (Welex) were done without difficulty. Sample and core quality were good

REMARKS:

to excellent.

The Aritex Development Corp. No. 2 Fee-Strat well is 400 feet north of the No. 1 Fee-Strat. It together with the No. 1 Fee-Strat will be utilized for propens storage. This will be accomplished by horizontal fracturing and washing out the intervening selt bad. A facies change in the upper part of the first massive selt bed occurred between the two wells. Essentially it is a shale wedge occurring at the very top of the bad.

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Structurally on the base of the salt bed this well is 8 feet low to the No. 1 Fee-Strat. The massive salt bed has thinned from 37 feet in the No. 1 to 18 feet in the No. 2 (See accompaning Cross-section Exhibit 1).

An adequate anhydrite roof was found to carry across from this well to the first well. It occurred from 1018 to 1822 feet.

The core showed an excellent plane to hydraulically frac at 1099 feet. This is between the anhydrite floor and a thin overlying salt bad.

In washing, a considerable amount of debris (non-soluble material) will cave in and remain on the floor. Even with this it is believed that the cavity after weshing will have a storage capacity in excess of 100,000 barrels of propane. Gas loss should be at a minimum due to the dense type anhydrite roof. A non-soluble shale will remain as a roof in the vicinity of the No. 2 Fee-Strat. A small amount of gas loss can be expected in this area. The fact that the No. 1 well is structurally updip from the No. 2 will be an advantage. (See Exhibit No. 2 Cross-section for the inferred north-south shape of the storage cavity).

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CONCLUSIONS:

Although a rapid facies change occurred between the two wells it still leaves enough soluble material to make an adequate propens storage cavity. An excellent frac plane was found at 1099 fest (No. 2 well) between the lower selt bed and the anhydrite floor.

Robert E. Lauth Cartified Professional Geologist A.I.P.G. No. 1366

Durango, Colorado Merch 23, 1970

RECORD OF SAMPLE DESCRIPTION OWNER ARITEX Development Corp. STATE ARIZONZ COUNTY NEURIO DRLG.TIME 100 Gravels, pea & wheat size 50 40 60 70 TR red silty shale 80 90 80 d brn shale U silty 100 100 110 htmilp&K 105h. Brn 120 110 Kbrn w/sd gr intercale 120 130 So wht wfg and good pak wire wet . TR DK Braskysh. 140 Oditto 150 160 170 - clay cement slicale 180 180 's whtuf-medgn. R-SR good pAK WTRWET 235 245 10/4 245 255 100 55 3/7 255 265 10055 100 Ss wht usg wellsorted Pair P&K 265 275 7/5 285 5/5 100 Ss 5/5 295 305 6/7 295 315 9/10 4/7 325 100 SE 8/10 335 100 Ss 100 Ss wht If fg rad clay cont pOOR PAK 335 345 8/11 100 Ss ditto 345 355 7/15 100 SS wht wfg much dicale day cout v poor p&K 355 365 15/5 100 55 5/12

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RECORD OF SAMPLE DESCRIPTION 21E LOCATION SENE; 4340 FWL, 2543 FNL ARITEX Development Corp STATE ARIZONZ COUNTY FROM 100 Ss. wht ufg rad slicale clayent poor PAK 8/10 375 385 395 100 Ss ditto 405 425 14/5 435 100 Sa 445 14/8 435 17/10 455 445 465 8/17 475 465 485 495 4/85 505 505 515 90 Ss redulgand poor pdK 10-/8_ 535 15/18 545 10 Sh. red. brown 9/10 555 565 35 red-brnufgse-R good pok 575 100 Ss red bra whit ufg umuch clay cont. poor park 595 15/5 585 595 609 13/15 ditto 100 15/10 90 Ss wht ufg firm 10 Gypsum wht soft. 605 615 615 625 15/10 100 Ss tam waluch clay cont upoor-mil pok 15/6 100 Ss Salmon colored ufg SR-RI fair p&K 625 635 100 Ss red-salman colufg and firm Spoor por some f-m gro. 635 645 9/8 12/11 100 Ss ditto 14/7 100 Ss 665 10/10 100 Ss 675 v ufg much clay emt sti cale. TR. gyp. 685 6/9 100 Ss 685 695 10/5 ditto_ 90 <u>Ss_</u> 10 Sh. red-brn 100 So wht-tan ufg firm foir pak
100 So red-bin Quitto 705 5/10 695 TR GUP. 10/15 705 715

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RECORD OF SAMPLE DESCRIPTION OWNER ARITEX DEVElopment CORP. STATE ARIZONZ COUNTY NAUZjo DATE 3-13-70 EXAMINED BY RFLAUTH TO 1005 DRLG.TIME LITHOLOGIC DESCRIPTION, FORMATION AND REMARKS 725 15/17 715 - red ufg mulh clayent, much gypsum 735 725 red-salmoncal ufg rmd from 755 765 1 silty in part -gry Jaren 775 90 SS ditto visity 785 825 835 50 55 845 835 855 845 865 10/15 853 90 SItst red in part faren 10 Gypsum whit soft 865 870 880 870 10/8 890 880 50Sh. redsoft. 900 _890 25/18 910 _900 910 920 33/29 90 ANhy fxhn gry brn dolomitic 10.Sh redsoft 70/38 920 930 27/23 930 60 Sh reddgy 40 Amhy ditto of Gypsum wht soft 940 100 Sh red soft non cale powder like 2/10 940 950 10/3 100 Sh ditto 950 960 100 Sh ditto 13/5 960 970 3/5 100 Sh ditto 980 970 990 9 /4 90Sh ditto 10 Gypsum soft wht 980 1000. 5 /20 20 Salt who chan 70 Sh ditto 10 Gypsum TR. Anky 40 Salt wht clear 505h -10 Сургит 1000 1005 cut 45' (core Time min (ft)) * Core No1 1005 --5-8-6-6-7-4-4-4 5-4 5-5-8-4-6/-5-5-4-4-5-4-4 ____5__5

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RECORD OF SAMPLE DESCRIPTION 6 TWP 17N RGE 21E LOCATION SENE; 4340 FWL, 2543 FNL 2 - Fee Strat. OWNER ARITEX Development Corp. STATE ARIZO. 172 COTE FROM 1005 LITHOLOGIC DESCRIPTION, FORMATION AND REMARKS Salt clear to dk red color xln with sporox, 10% red 1008 2 whit to gry granular to fxln. Salt clene with 20% brn shale inc shale dispersed throughout Becoming slightly eleaner at base (Salt of Vertical Shales CORE NO. 2 1050 - 1110 Core time 6+7-7 8 -6-Salt and rea snu.

Anhydrite gray togreen, fuln to ons.

1. 1. 1. xln halite, approx 10% red powdery. Salt and red shale as in proceeding description. 1050 1051 1051 10522 10522 1054 shale dispersed throughout. Salt, white to clear, holite, minor red shale incl 1061-1062 very clean 99% Salt.

6.3246.00

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RECORD OF SAMPLE DESCRIPTION 6 TWP 17N RGE 2/E LOCATIONS OWNER ARI tex Development Corp. STATE ARIZONA 1140 EXAMINED BY R.E. Lauth Thickness 1076 1088 1092 1088 1092 1099 1100 11052 1107 tight, with approx dispersed throughout, healed frac (Sand a vertical halite Sample Description 100 Ss reds Ity via tight no pelk TEGypsum
80 Ss ditto Ushaly 20 Anhy&Gypsum 1110 1120 20 Anhy & Gypsum 1120 1130 17/18 50 Anhy & Gypsum 1130 1140 12/19 505/tsT facen TD. Driller 1140

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March 26, 1970

Samples from the following well have been received at the cut.

Aritex Development Corp. #2 Fee Strat
Sec.6-17N-21E
Navajo Co. Arizona

FARMINGTON, NEW MEXICO

March 26, 1970

Re: Aritex Development #1 Fee Strat NE/4 SE/4 6-17N-21E Navajo County Permit #530

> Aritex Development #2 Fee Strat SE/4 NE/4 6-17N-21E Nayajo County Permit #532

Mr. Tom Martin called to inform us that on Tuesday last they had succeeded in establishing communications between the #1 and the #2 wells, which are located 400' apart. Mr. Martin indicated that pressure was applied (by Hallibutton) and after reaching a pressure of about 1500 pounds, the water broke through from the #2 well into the #1 well. This took about 5 minutes after they began to pressure up. The 2 wells have now been put on a common pump which is apparently positioned between the 2 wells in such a way that it can push water in either direction. Currently the pump (a piston pump) is pumping about 200 gallons of water per minute down the #2 well and through the #1 well with a discharge pressure of about 160 pounds.

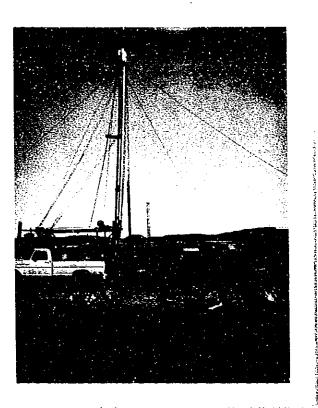
All seems to be going well and they are pleased with the ease with which they have managed to establish this communication.

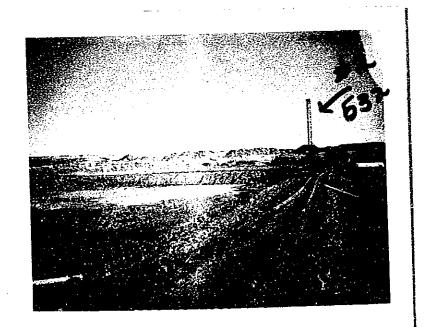
Mr. Martin said that they had walked around the area on the surface to inspect for seepage and had found no seepage.

He is living in a trailer in Holbrook (telephone 524-3518). He is bringing his family up shortly from Houston.

In answer to some apparent inquiry from Mr. Bannister, Mr. Martin stated that information regarding the water well had been put in the mail yesterday at Houston. We should be receiving it within a day or so.

Aritos





Aritex #1 Fee #530 phone from Jim Baldwry 3-6-70 9:15 AM

TD 1100'

(occoming 138' to 725' (well)

Sout 1025'

7" (2016) Casing set to 1026'

with 175 Sx Coment (755x light

1005x regular)

will drill out plug 3-7-70

will set 412 tubing to 1062'

will drill 2nd Well 400 to North
frack into Salt. Water will be circulated
between 2 wells until communication
established. Two temporary pits established
for this purpose.

When carrity being created a 200,000 bls.
pit will be made - salt will be
sold after eraporation -

New well 4239.83' f W, 2542.82' F N See 6, 17 N, 24 E

± 1200' T.D. WELL #530 S -12 1/4" HOLE 95%" CASING -138.30 834" HOLE " CASING ± 1200' 1.D. WELL NO. NO. 2 _95%" CASING -12 1/4" HOLE - CEMENTING PLUG 834" HOLE FLOAT COLLAR 7" CASING GUIDE SHOE PERFORATE

SOLUTION WELL SCHEMATIC PREPARATORY TO FRACTURING

FIG. I

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FIG. 2

DEVELOPMENT

EBE2H **MATER** 4530 4 //2 " て **3.42**" TUBING LEGEND: + + SALT STORAGE CAVERN BLANKET SHALE -DBING-GETARUTAS BRINE ∠95/8" CASING 7" CASING

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#2 665' TD on 3-10-70

will produce from either well into 30000 gal tank - board from tank into train or truck

				-	
APPLIC TIC	ON FOR PERMIT	TO DRILL OR	E-ENTE	R	
Application to drill 5	•			TO MEET []	
ARITEX DEVELOPEMENT CORP					
301 Sharpstown Bank Blo	dg. F	louston		Texas State	
Jewell Adkison					
orilling Contractor Albuquerque, New Mex	ico				
ddress		THE THE CH		·	
	DESCRIPTION OF	WELL AND LEASE Well number		Elevation (ground)	
ederal, State or Indian Lease Number, or if fee e Remarks	ICASE, HAING OI ICESOF	2		5077.60	
Venest distance from proposed location o property or least line: 100' FN property line 100' FW property line	feet	Distance from proposed completed or applied—fo	location to i or well on th	nearest drilling, ne same lesse: 400 feet	
Number of acres in lease: 15.72 AC See Remarks		Number of wells on lease, including this well, completed in or drilling to this reservoir:			
f lease, purchased with one or more veils drilled, from whom purchased:	<u> </u>	Ac	idress		
Well location (give footage from section lines)	Section—town	uship—range or block and T 17N R21E	survey	Dedication (Comply with Rule 165)	
Field and reservoir (if wildcat, so state) Wildcat for \$81t		County	avaio		
Distance, in miles, and direction from hearest to					
h Miles East Holbrook Proposed depth:	Rotary or cable tools		Approx. di	ite work will start	
1200	Rotary	7	3-10		
3 and Status	Organization Report		Piling Fee	825.00	
Amount\$5000.00 Remarks: This 15.72 Acres W. Gerwitz. It is under Eagleton. If sufficien Liquified Petroleum Sto Eagleton's exercising o	is swned by troption to I t salt is for rage, the 15	H. Norman Kag und when well	witz a leton is dr	nd wife, LaMerle and wife, Janet G illed to develope	
CERTIFICATE: I, the undersigned, under the					
ARITHEY REVELOPEMENT CORE REPORT WAS Prepared Under My Supervision and de * A proprietorship owned		r that I am authorized by a stated therein are true, o	orrect and c	omplete to the best of my knowledge	
H. Norman Eagleton.		Signature	10	- 20	
Verbal approval		Date		(811187)	
Permit Number: 532 Approval Date: 3-51-79	532	OIL & GA		F ARIZONAS VATION COMMISSION	
Approved By: Approved By: Notice: Before sensing in this form be sure !!	MANCALLA hat you have given	- Aı	•	we Copies	
Notice: Before sensing in this form be sure the all information requested. Much unnecessity with the sensity of	researy correspond-	Form No. 3			

(Complete Reverse Side)

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i.	Operator :	shall	outline	the	dedicated	acreage	for	both	oil	and	gas	wells	on	the	plat.
----	------------	-------	---------	-----	-----------	---------	-----	------	-----	-----	-----	-------	----	-----	-------

- 2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- 3. All distances shown on the plat must be from the outer boundaries of the Section.
- 4 Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES_X_NO____
- 6. If the answer to question four is "no," list all the owners and their respective interests below:

Owger			Land Description	
			SE'4 NE'4 S	Sec. 6, TITN RZIE
		<u> </u>		CERTIFICATION
	4339.82	·	542.82	I hereby certify that the informa- tion above is true and complete to the best of my knowledge and belief.
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Name Position
		·		Company Date
				I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
-				Bate Surveyed -3 -70 Resistance Professional Engineers
·				Registered Professional Engineer and/or Land Surveyor
0 330 660 990 13	20 1650 1980 2310	2640 2000 1	500 1000 500	Certificate No. 5704

PROPOSED CASING PROGRAM

Size of Casing | Weight | Grade & Type | Top | Bottom | Cernenting Depths | Sacks Cement | 4578" | 32 | H 40 | 0 | 185 | 185 | 125 | 125 | 171 | 20 | 355 | 0 | 1100 | 1100 | 200

O

- i. Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
- 2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- 3. All distances shown on the plat must be from the outer boundaries of the Section.
- 4 Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES X NO.
- 5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES.____NO_____. If answer is "yes," Type of Consolidation_______
- 6. If the answer to question four is "no," list all the owners and their respective interests below:

ner			Land Description	
	<u>,</u>		SE'4 NE'M	Sec. 6, TITN RZIE
				CERTIFICATION
	4339.82'		542.82	I hereby certify that the information above is true and complete the best of my knowledge and belief. Name
•				
				Position Company
÷.	\$ \$ 1			Date
				I hereby certify that the well loc- tion shown on the plat was plotte from field notes of actual surve made by me or under my supe
				vision, and that the same is true a correct to the best of my knowled and belief.
· ·				Bate Surveyed
:			 	Registered Professional Enginee and/or Land Surveyor
330 660 990 13	20 1650 1980 2310	2640 2000 15	00 1000 500	Certificate No.

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State of Arizona

Oil & Gas Conservation Commission

Permit to Drill

FORM NO. 27



PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION, STATE OF ARIZONA,

To:	ARIT	EX BEVA	LOPELIA (AMPHRALIUM	
I Vi			(OPERATOR)		
•			34 . 1. 3		
	to	drill a we	ll to be kno	wn as	
		A STATE OF THE PARTY.	CATEGOR AT	10s #2 PEE ST	TAT
	ARITER BRAN		ELL NAME)	VAN Se som no	
located	4339	FUL - 2	542 FEL		
Section 6	Township 17x	Range_	21E	AVATAO	County, Arizona.
			•		
The	STRAT				of said
Section, Towns	ship and Range is ded	icated to t	his well.	•	
Said well	is to be drilled substa	ntially as	outlined in th	ne attached Applic	ation and must be drilled
in full complia	nce with all applicable	e laws, sta	tutes, rules	and regulations of	the State of Arizona.
	•				and the second s
	s_// the_day of	\mathcal{M}_{α}	walst	•	10 70
Issued thi	5 / 1 2 day ot	1110	7000		17
•			OU AN	D GAS CONSERV	ATION COMMISSION
·.			OIL AN	D GAS CONSERV	
			Ву	John K)	anneller
				EXECUTIVE	E SECRETARY
			U		

SAMPLES ARE REQUIRED

RECEIPT NO. 2866 API No. 02-017-20004

 N_{0}

532

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PERMIT

STITL STATE OF THE RIVER Holbrook 7.51 50982

6.

ARITEX Development Corp.

NESE Sec. 6 - 17 N - 21 E

Navajo County, Arizona

No. 1 Fee Strat.

- 400 teer

950

Dalum (+) 4077

1000

Dalum (+) 3977

Total Depth : 1101'

ANHYDRITE ROOF

ANHYDRITE

FLOOR

ARITEX DEVELOPMENT CORPORATION BY

PROPANE STORAGE AREA

HOLBROOK, ARIZONA

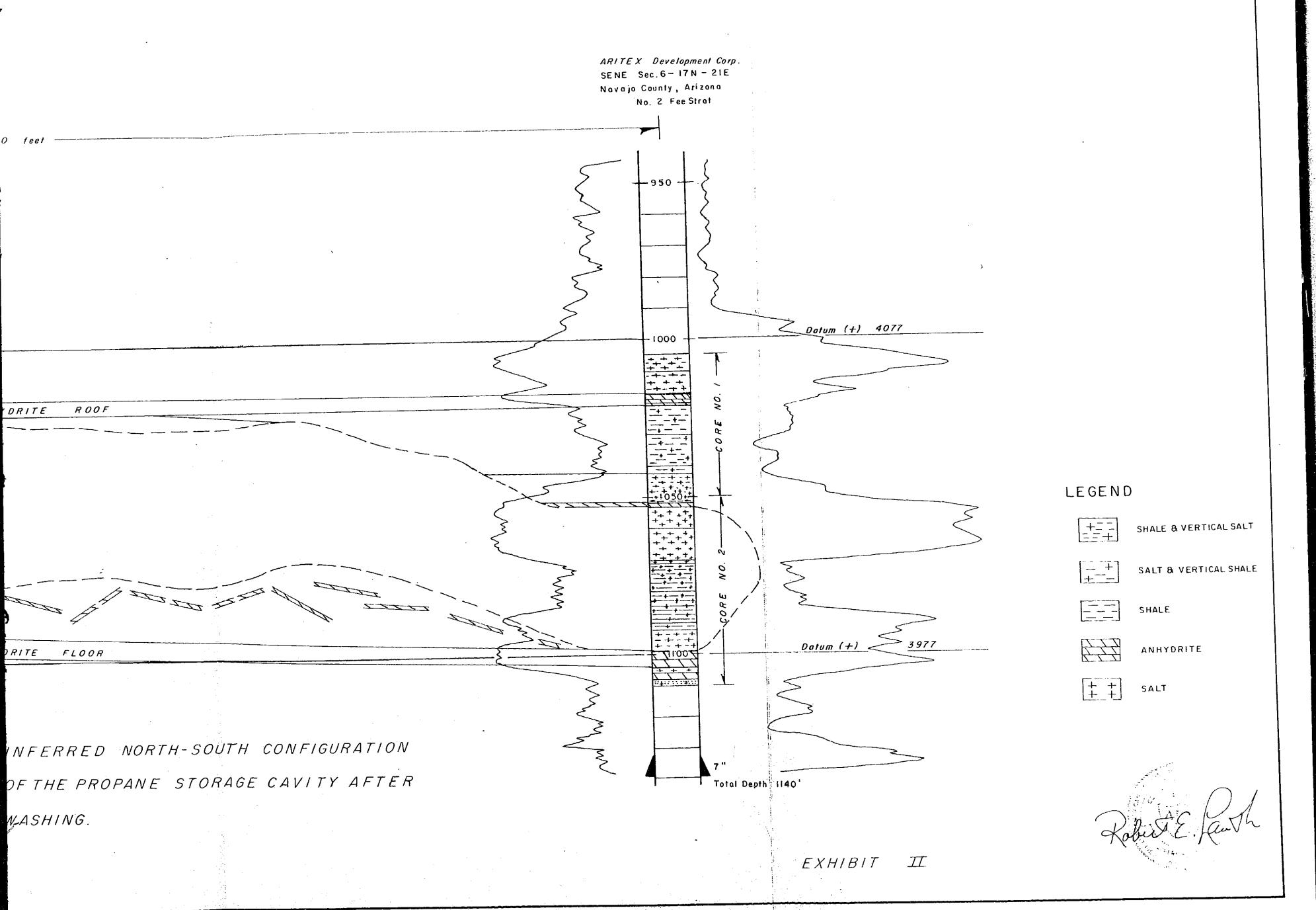
SCALE: Horizontal & Vertical: 5" = 100 feet

INFERRED NORTH-SOUTH CONFIGURATION

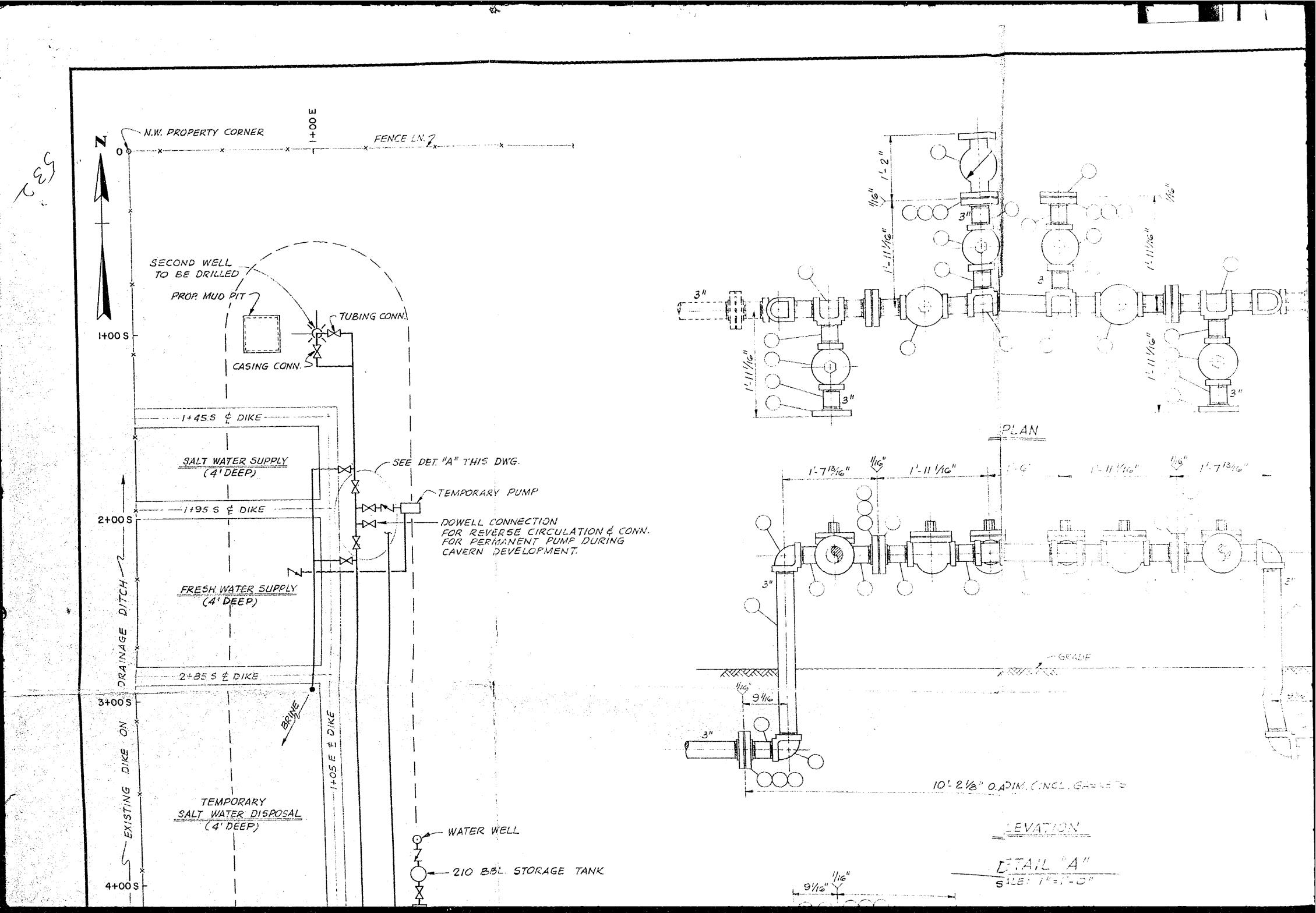
OF THE PROPANE STORAGE CAVITY AFTER

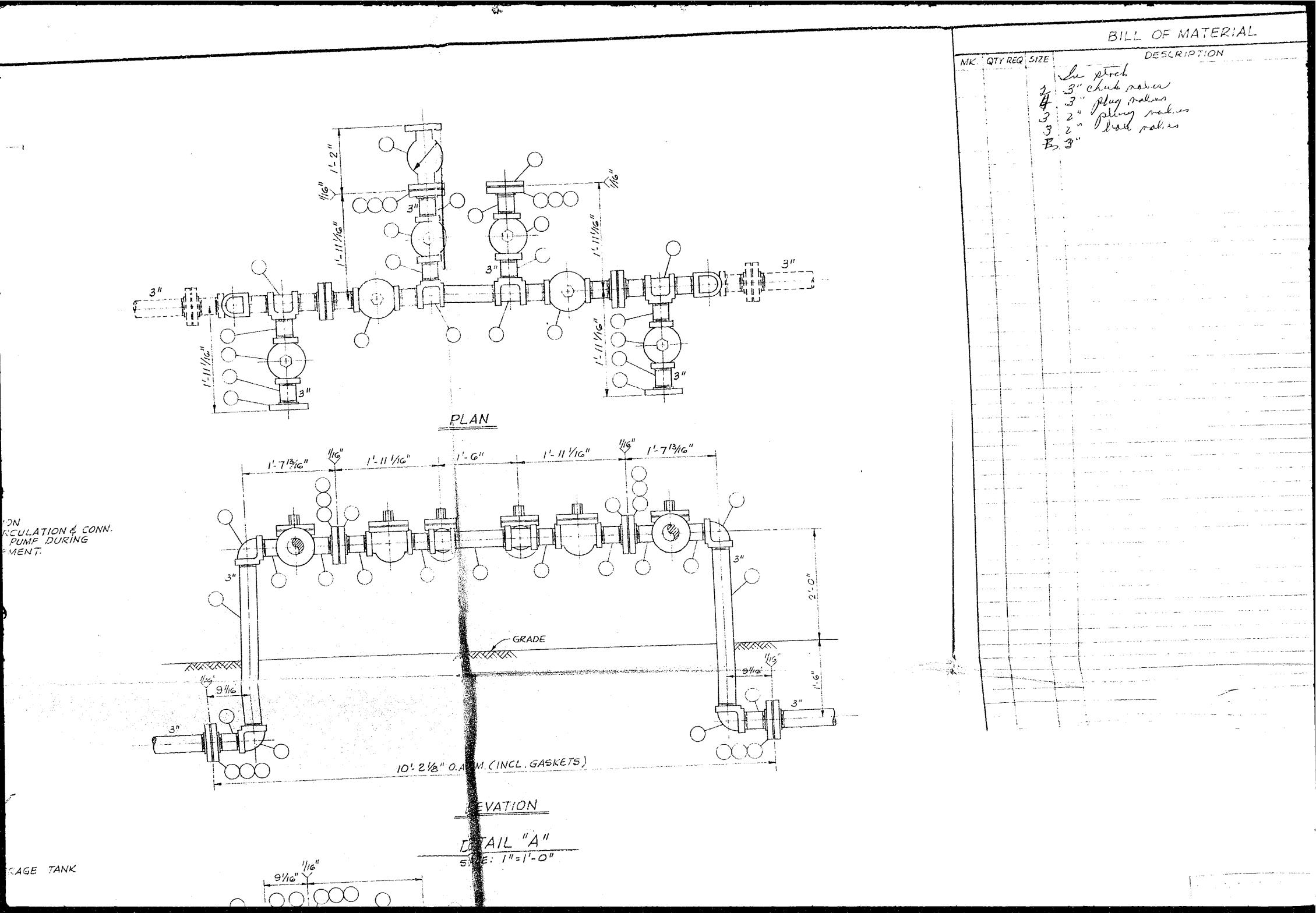
WASHING.

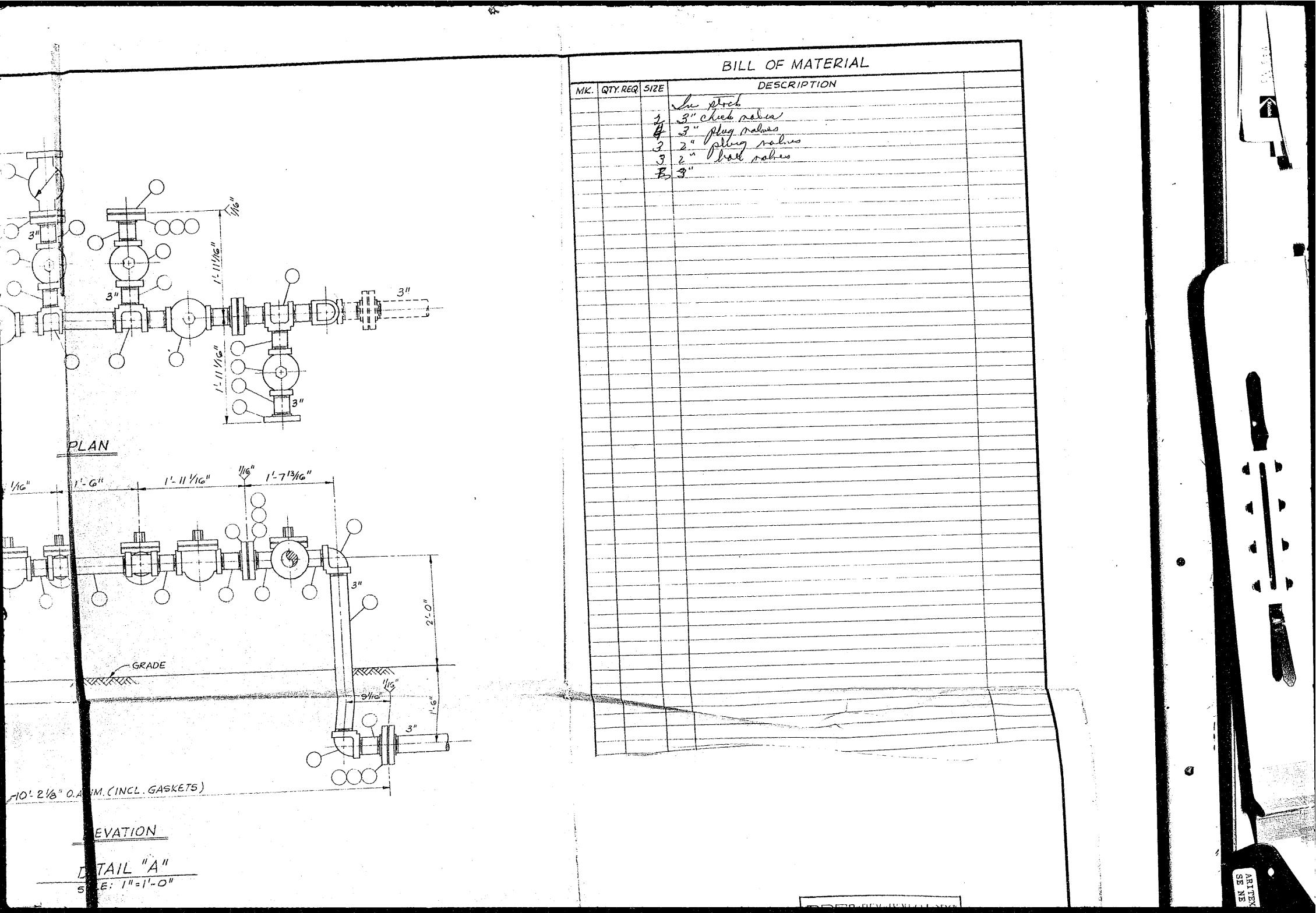
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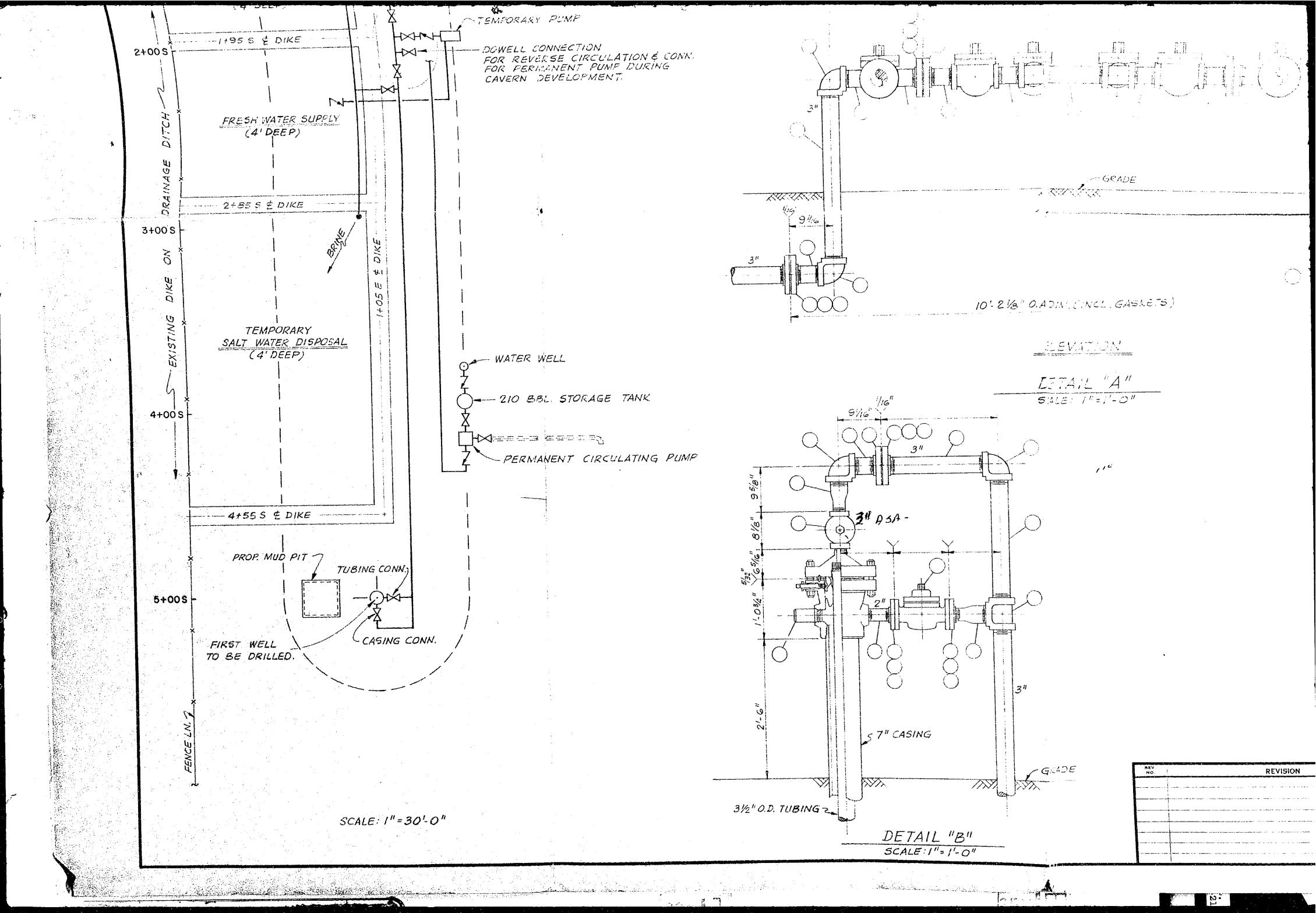


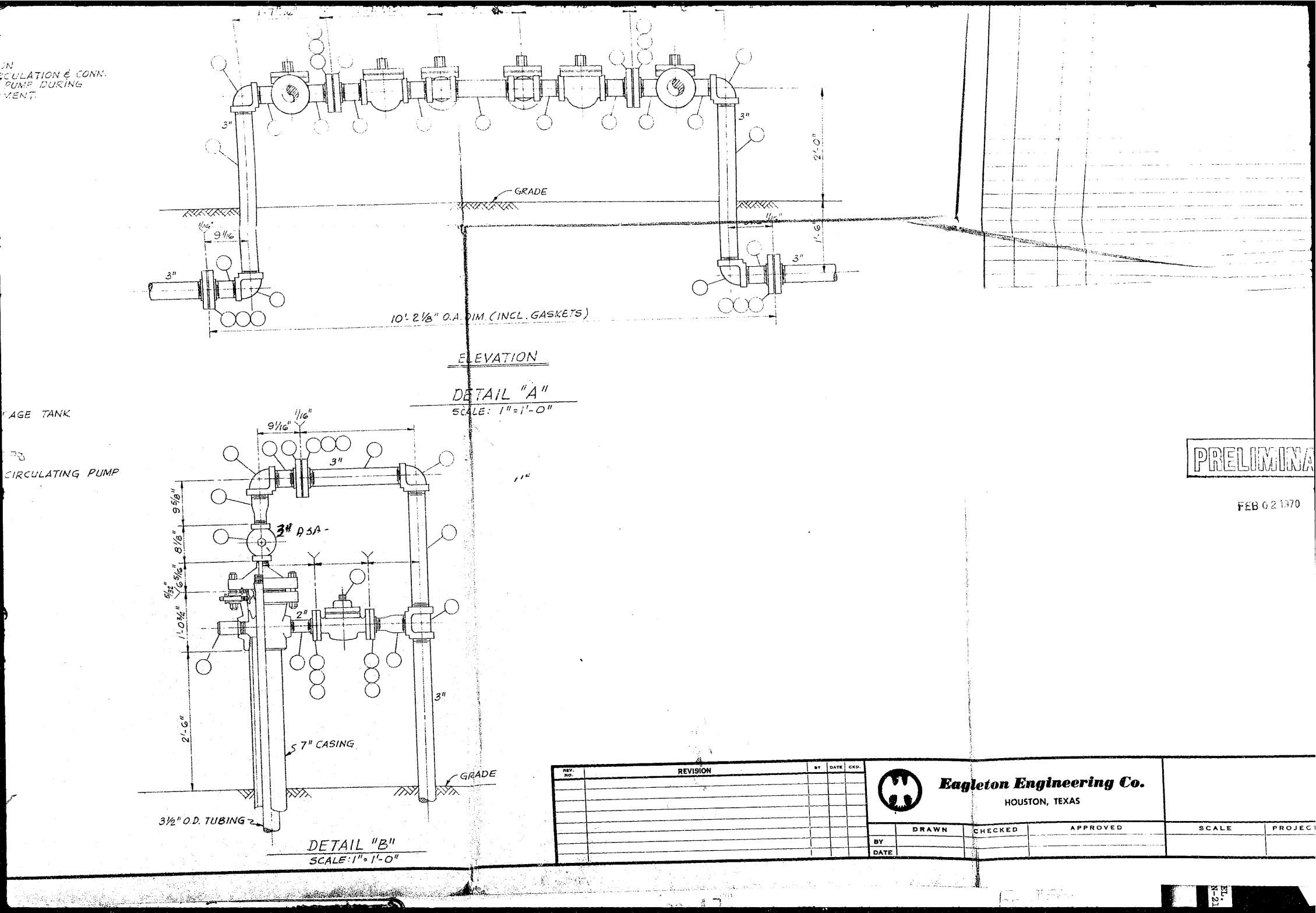
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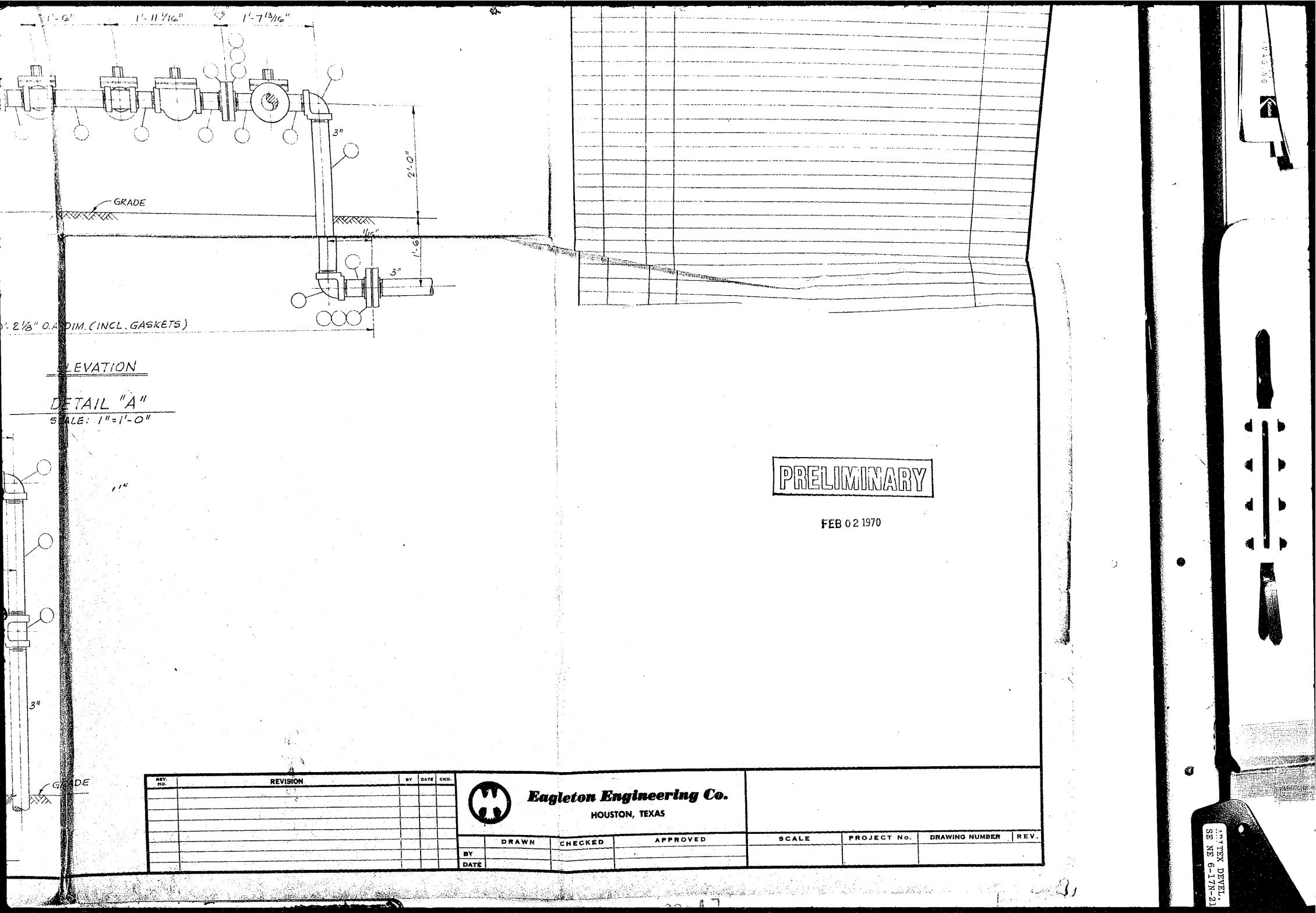














Governor

Arizona Geological Survey

416 W. Congress, Suite 100 Tucson, Arizona 85701 (520) 770-3500



Larxy D. Fellows Director and State Geologist

14 pages total

April 15, 1996

Fax memo:

Paul Rowe

Roy E. Ladd, Inc.

Fax No. 520-524-3437

From:

CLP Steven L. Rauzi, Oil & Gas Administrator

Fax No. 520-770-3505

Re:

Our discussion of Aritex wells near Holbrook

The information we discussed when I was in Holbrook last Thursday and in my phone call this morning is attached. The information includes the applications to drill, plug & abandon, and plugging records for the two Aritex wells; two schematic drawings of the proposed storage cavity between the wells; the preliminary project plan showing the two wells near the ne and se corners of the surface ponds; and the Holbrook 7.5-minute quadrangle showing my plots of the footages in the applications to drill and the new plots based on the Aritex plan.

Since I did not have the Aritex plan, I did not check the ne and se corners of the ponds, just the plots west of the ponds on the attached topo sheet. As a result, I would appreciate your checking for the two abandoned wells near the ne and se corners of the pond and letting me know what you find. A photograph of the abandonment markers (4" diameter pipe at least 4' above ground level) if they exist.

I look forward to hearing from you soon.

2-

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

	K.r	MOM WITH MEM DI 11	TESE LIENDENIE	
		•	Bond Serial No.	29-0130-153-70
nao:	こうかんな でおたておでだりてん	arc co	•	
That we: EAG.	LETON ENGINEERIN		······································	•
of the County of	Harris	in	the State of Texas	
of the county o-		DEDUCTION AND	σιιαραμήν σομράμν	
as principal, and	UNITED STATES	FIDELITI AND	GUARANTI COMPANI	
_	Baltimore, Man	ryland		
of .	AUTHORIZE	D TO DO BUSINESS	WITHIN the State of Arizo	ona. Province Commission, hereinafter
referred to as the lawful money of	"Commission", in the pe the United States, for wh	enal sum of <u>FIVE</u> 1 nich payment, well and	truly to be made, we bir assigns jointly and severall	ervation Commission, hereinafter 00 (\$5,000.00) and ourselves, and each of us, and ly, firmly by these presents.
The conditions of	this obligation are that, ourposes in and upon the	whereas the above bou following described lar	nden principal proposes to nd situated within the Stat	te, to-wit: Well No. 2,
SE 1/4 Sec	tion 6 Township	17 North Rang	e 21 East, Navaj	jo/County, Arizona
NOW, THEREFO rules, regulation for the proper di all notices and r mercial quantities	ORE, if the above bounders and orders of the Committing, casing and pluggin ecords required by said Ces, or cease to produce oil	(May be used as blanket be n principal shall compl nission, especially with g of said well or wells Commission, then in th or gas in commercial q	y with all the provisions of reference to the requirem s, and filing with the Oil are event said well or wells uantites, this obligation is	of the Laws of this State and the ients of A.R.S. § 27-516, providing and Gas Conservation Commission do not produce oil or gas in comvoid; otherwise it shall remain in
		ared by the Oil and G s of the Commission, t	as Conservation Commission to surety shall promptly:	in violation of the Laws of this
a Thursday illas	violation by its own effort	ts. or		Taxables by the Commis-
sion and the make availab ing other cos hereof	Surety of the lowest respondence of the lowe	ficient funds to pay the the surety may be lial	cost of remedying the viole hereunder, the amoun	oon determination by the Commis- ch bidder and the Commission, and olation; but not exceeding, includ- t set forth in the first paragraph
Liability under	this bond may not be terr	minated without writte	en permission of this Com	mission.
WITNESS our I	nands and seals, this	2 day of	March	, 19.70
	EAGI	LETON ENGINEER	ING CO.	
	·	*//		"/ /
-	BY:	f\delta_l_fl	Principal Principal	eleton
WITNESS OUT	hands and seals this	2 day of	March	, <u>19. 70</u>
10/2111	1 U L LININ	ED STATES FIDE	LITY AND GUARANT	CY COMPANY
DATE	2-4-74 BY:	alfreda	mills	Attorney-in-Fact
DAIE.		a la	Surety	
COUNTERSIO	GNED BY:	1 11. exporta	Surety, Resident Arizons.	Agent
		a avenued husts duly author	If issued in a state other than ized officers, with the seal of the ust accompany the bond.)	
(If the principal is executes this bond	a corporation, the bond should by agent, power of attorney or o	other evidence of authority hi	ust accompany the bond.)	man 4 19/0
Approved Date	3-11-70		OIL & GAS CON	SERVATION COMMISSION
۔ ہے۔	STATE OF ARIZON			Bond A NA B
OII &	gas conservation o	ACA	Form No. 2	File Two Copies
By:	VIV JEANVOVIC		PULICULAR A	一
Permit No	<u> 32</u>			S P P P S

•-

CERTIFIED COPY

GENERAL POWER OF ATTORNEY

No. 75048

Know all Men by these Presents:

That UNITED STATES FIDELITY AND GUARANTY COMPANY, a corporation organized and existing under the laws of the State of Maryland, and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint Alfreda Mills

of the City of Houston , State of Texas its true and lawful attorney with the Kittexxxxxx

for the following purposes, to wit:

FS 3 (9-67)

To sign its name as surety to, and to execute, seal and acknowledge any and all bonds, and to respectively do and perform any and all acts and things set forth in the resolution of the Board of Directors of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, a certified copy of which is hereto annexed and made a part of this Power of Attorney; and the said UNITED STATES FIDELITY AND GUARANTY COMPANY, through us, its Board of Directors, hereby ratifies and confirms all and whatsoever the said

Alfreda Mills

may lawfully do in the premises by virtue of these presents. In Witness Whereof, the said UNITED STATES FIDELITY AND GUARANTY COMPANY has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice-President and Assistant Secretary, this UNITED STATES FIDELITY AND GUARANTY COMPANY. B_{y} . A. C. Holmes (Signed) Vice-President. (SEAL) (Signed)E. W. Buffington..... Assistant Secretary. STATE OF MARYLAND, BALTIMORE CITY, , A. D. 1962, before me personally came October On this , Vice-President of the UNITED STATES FIDELITY AND GUARANTY A. C. Holmes , Assistant Secretary of said Company, with both of COMPANY and E. W. Buffington whom I am personally acquainted, who being by me severally duly sworn, said that they resided in the City of Baltimore, Maryland; that they, the said

A. C. Holmes

and

E. W. Buffington

were respectively. that they, the said the Vice-President and the Assistant Secretary of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so fixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice-President and Assistant Secretary, respectively, of the Company. My commission expires the first reconstitute and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire an expire and an expire anature and an expire an expire and an expire and an expire an expi Anne M. Q'Brien (SEAL) Notary Public. STATE STATE OF MARYLAND Sct. BALTIMORE CITY, , Clerk of the Superior Court of Baltimore City, which Court is a James F. Carney , Ecquire, before Anne M. O'Brien Court of Record, and has a seal, do hereby certify that Since of Manyland, in and for the City of Baltimore, duly commissioned and sworn and authorized by law to administer oaths and take acknowledgments, of proof of deeds to be recorded therein. I further certify that I am acquainted with the handwriting of the said Notary, and verify believe the signature to be his genuine signature.

In Testimony Whereof, I hereto set my hand and affix the seal of the Superior Court of Baltimore City, the same being a Court of Record, this 2515 day of October , A. D. 1962 James F. Carney (Signed) (SEAL)

Clerk of the Superior Court of Baltimore City.

a

COPY OF RESOLUTION

That Whereas, it is necessary for the effectual transaction of business that this Company appoint agents and attorneys with power and authority to act for it and in its name in States other than Maryland, and in the Territories of the United States and in the Provinces of the Dominion of Canada and in the Colony of Newfoundland.

Therefore, be it Resolved, that this Company do, and it hereby does, authorize and empower its President or either of its Vice-Presidents in conjunction with its Secretary or one of its Assistant Secretaries, under its corporate seal, to appoint any person or persons as attorney or attorneys-in-fact, or agent or agents of said Company, in its name and as its act, to execute and deliver any and all contracts guaranteeing the fidelity of persons holding positions of public or private trust, guaranteeing the performances of contracts other than insurance policies and executing or guaranteeing bonds and undertakings, required or permitted in all actions or proceedings, or by law allowed, and

Also, in its name and as its attorney or attorneys-in-fact, or agent or agents to execute and guarantee the conditions of any and all honds, recognizances, obligations, stipulations, undertakings or anything in the nature of either of the same, which are or may by law, municipal or otherwise, or by any Statute of the United States or of any State or Territory of the United States or of the Provinces of the Dominion of Canada or of the Colony of Newfoundland, or by the rules, regulations, orders, customs, practice or discretion of any board, body, organization, office or officer, local, municipal or otherwise, be allowed, required or permitted to be executed, made, taken, given, tendered, accepted, filed or recorded for the security or protection of, by or for any person or persons, corporation, body, office, interest, municipality or other association or organization whatsoever, in any and all capacities whatsoever, conditioned for the doing or not doing of anything or any conditions which may be provided for in any such bond, recognizance, obligation, stipulation, or undertaking, or anything in the nature of either of the same.

J. E. Hackett , an Assistant Secretary of the UNITED STATES FIDELITY AND GUARANTY COMPANY, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney given by said Company to Alfreda Mills

of Houston, Texas , authorizing and empowering her to sign bonds as therein set forth, which power of attorney has never been revoked and is still in full force and effect.

And I do further certify that said Power of Attorney was given in pursuance of a resolution adopted at a regular meeting of the Board of Directors of said Company, duly called and held at the office of the Company in the City of Baltimore, on the 11th day of July, 1910, at which meeting a quorum of the Board of Directors was present, and that the foregoing is a true and correct copy of said resolution, and the whole thereof as recorded in the minutes of said meeting.

In Testimony Whereof, I have hereunto set my hand and the seal of the UNITED STATES FIDELITY AND GUARANTY COMPANY on March 2, 1970 (Date)

Assistant Secretary.

RIDER

To be attached to and form part of Performance Bond Number 29-0130-153-70, in favor of the State of Arizona and the Oil and Gas Conservation Commission, on behalf of Eagleton Engineering Co., as Principal, and United States Fidelity and Guaranty Company, as Surety, in the penal sum of Five Thousand and No/100(\$5,000.00) Dollars, dated March 2, 1970.

It is hereby understood and agreed that effective March 2, 1970, the description and location of Well No. 2 is amended to read as follows:

Aritex No. 2 Well NE/4 of Section 6, Tl7N, R2lE, Navajo County, Arizona

All other terms and conditions of the bond to remain as originally written.

Dated at Houston, Texas, this 16th day of March, 1970.

EAGLETON ENGINEERING CO.

UNITED STATES FIDELITY AND GUARANTY COMPANY

Attorney-in-Fact

TAM 2 1 1970

DATE 3-4-74

CERTIFIED COPY

GENERAL POWER OF ATTORNEY

75048

Know all Men by these Presents:

That UNITED STATES FIDELITY AND GUARANTY COMPANY, a corporation organized and existing under the laws of the State of Maryland, and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint Alfreda Mills

. State of

Houston of the City of its true and lawful attorney wincook for the Stetex XXXX Texas

for the following purposes, to wit:

To sign its name as surety to, and to execute, seal and acknowledge any and all bonds, and to respectively do and perform any and all acts and things set forth in the resolution of the Board of Directors of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, a certified copy of which is hereto annexed and made a part of this Power of Attorney; and the said UNITED STATES FIDELITY AND GUARANTY COMPANY, through us, its Board of Directors, hereby ratifies and confirms all and whatsoever the said

Alfreda Mills

may lawfully do in the premises by virtue of these presents. In Witness Whereof, the said UNITED STATES FIDELITY AND GUARANTY COMPANY has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice-President and Assistant Secretary, this

, A. D. 1962 October UNITED STATES FIDELITY AND GUARANTY COMPANY.

By. A. C. Holmes

(SEAL)

(Signed)

(Signed)

.....E. W. Buffington..... Assistant' Secretary.

STATE OF MARYLAND, BALTIMORE CITY,

day of On this A. C. Holmes E. W. Buffington COMPANY and

, Vice-President of the UNITED STATES FIDELITY AND GUARANTY , Assistant Secretary of said Company, with both of

whom I am personally acquainted, who being by me severally duly sworn, said that they resided in the City of Baltimore, Maryland; that they, the said

A. C. Holmes

and

E. W. Buffington

were respectively that they, the said the Vice-President and the Assistant Secretary of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so fixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice-President and Assistant Secretary, respectively, of the Company.

October

My commission expires the first moderate war Monday in May, A. D. 1963.

(SEAL)

(Signed)

Anne M. Q!Brien

, A. D. 1962, before me personally came

Notary Public.

STATE OF MARYLAND Sct. BALTIMORE CITY,

, Clerk of the Superior Court of Baltimore City, which Court is a James F. Carney , Esquire, before Court of Record, and has a seal, do hereby certify that Anne M. O'Brien whom the annexed affidavits were made, and who has thereto subscribed his name, was at the time of so doing a Notary Public of the State of Maryland, in and for the City of Baltimore, duly commissioned and sworn and authorized by law to administer oaths and take acknowledgments, or proof of deeds to be recorded therein. I further certify that I am acquainted with the handwriting of the said Notary, and verily believe the signature to be his gennine signature

In Testimony Whereo, I hereto set my hand and al of the Superior Court of Baltimore City, the same being a Court , A. D. 1962 of Record, this James F. Carney

(SEAL)

Clerk of the Superior Court of Baltimore City.

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COPY OF RESOLUTION

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Also, in its name and as its attorney or attorneys-in-fact, or agent or agents to execute and guarantee the conditions of any and all bonds, recognizances, obligations, stipulations, undertakings or anything in the nature of either of the same, which are or may by law, municipal or otherwise, or by any Statute of the United States or of any State or Territory of the United States or of the Provinces of the Dominion of Canada or of the Colony of Newfoundland, or by the rules, regulations, orders, customs, practice or discretion of any board, body, organization, office or officer, local, municipal or otherwise, be allowed, required or permitted to be executed, made, taken, given, tendered, accepted, filed or recorded for the security or protection of, by or for any person or persons, corporation, body, office, interest, municipality or other association or organization whatsoever, in any and all capacities whatsoever, conditioned for the doing or not doing or anything or any conditions which may be provided for in any such bond, recognizance, obligation, stipulation, or undertaking, or anything in the nature of either of the same.

I, J. E. Hackett , an Assistant Secretary of the UNITED STATES FIDELITY AND GUARANTY COMPANY, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney given by said Company to Alfreda Mills

of Houston, Texas , authorizing and empowering her forth, which power of attorney has never been revoked and is still in full force and effect.

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In Testimony Whereof, I have hereunto set my hand and the seal of the UNITED STATES FIDELITY AND GUARANTY COMPANY on March 16, 1970

Assistant Secretary.



Oil and Gus Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

February 21, 1974

RECEIVED FEB 25 1974 EAGLETON ENGINEERING CO.

Mr. Norman Eagleton Aritex Development Corporation 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex #2 Well Permit No. 532 Bond No. 29-0130-153-70 \$5,000

Dear Mr. Eagleton:

We have received your request from U.S.F.&G. for cancellation of the above referenced bond. If this request meets with your approval, please advise and we will then notify the bonding company that this bond may be cancelled.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

February 25, 1974

Dear Mr. Allen:

You have our approval to notify the bonding company that the bond may be cancelled.

Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, P.E.

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O & G COMM.

February 21, 1974

The services in

Mr. Norman Eagleton Aritex Development Corporation 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex #2 Well
Permit No. 532
Bond No. 29-0130-153-70
\$5,000

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Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

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UNITED STATES FIDELITY AND GUARANTY COMPANY

3401 FANNIN STREET, P. O. BOX 8426 HOUSTON, TEXAS 77004

TELEPHONE: 713/JACKSON 6-1551
K. C. PTOMEY

JOHN F. ROUGAGNAC

MANAGER February 13, 1974

JOSEPH S. KNIGHT SUPERINTENDENT - CLAIMS

011 & Gas Conservation Commission State of Arizona 1624 W. Adams. Rm.202

1624 W. Adams, Rm. 202 Phoenix, Aria. 85007 NOTICE OF CANCELLATION

Re: Section 6, T178, R21E, Navajo County, Arisona

Whereas on or about the 2 day of Harch 1970 United States

Fidelity and Guaranty Company, as Surety, executed 611 or 6as

Well Drilling Bond(Well #2) in, the penalty of \$5,000.00

on behalf of Engleton Engineering Co.

in favor of State of Arizona

Bond No.29-0130-153-70

, and;

Wheareas it is our desire to cancel said bond in accordance with the terms thereof.

Signed, sealed this 13th day of Yebruary

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UNITED STATES FIDELITY AND GUARANTY COMPANY

Attorney-in-Fact

Accordey 25 10

ACKNOWLEDGEMENT

United States Fidelity and Guaranty Company Houston, Texas

Your Notice of Cancellation as set forth above received. We have arranged to cancel said bond effective:

Date:

06,00

PLEASE COMPLETE THE ACKNOWLEDGEMENT AND RETURN ONE COPY TO US.

cc: Corroon & Black of Texas, Inc. Houston, Texas

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U. S. F. & G.

August 27, 1973

Ma. Kay Waller Petro-Well Libraries Inc. 150 Security Life Building 1616 Glenarm Place Denver, Colorado 80202

Re: August Current File Material

Dear Kay:

Enclosed is the current material for the month of August.

Data on File #583 - Astro-Tex Corporation Federal No. 1 (As Per your request of 8-3-73)

Data on File #27 - Colorado Basin Associates (As per your request of 8-3-73)

Data on File #530 - Aritex Davelopment Strat Fee #1. One Interface Survey Log

Data on File #832 - Aritex Development Strat Fee #2 One Gemma Ray Log

By cartified mail you will be receiving data and logs on File #583 Humble Oil & Refining Company Well Ro. 1 State (74).

Very truly yours,

W. E. Allen, Director Enforcement Section

Rhems L. Brandt Secretary to W. E. Allen

/zlb

Encs.

Y.S. Shop, 'Che outleas, 'se Telegraphil received new requests for the Arizona toll Tales? Don't mary one fruit, small back out and

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ARITEX DEVELOPMENT CORPORATION

301 SHARPSTOWN BANK BLDG.

HOUSTON, TEXAS 77036

PHONE (713) 771-6343

OPERATING FACILITIES

AT

HOLBROOK, ARIZONA

August 2, 1973

Mr. W. E. Allen, Director Enforcement Section Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Dear Mr. Allen:

Attached are the completed application to plug and the plugging reports for our two abandoned wells near Holbrook. As you know from your discussions with Torn Martin, we are reluctantly abandoning our proposed LPG storage project. This project caused us a substantial loss of money but we have tried to close out our operation in a manner that is in accordance with your requirements.

Also attached are copies of the logs that you requested. One is an Interface Survey of Well No. 1 made on May 7, 1971. The other is a Gamma Ray Log made on Well No. 2 on May 8, 1971.

The estimated volume of salt removed between the two wells is approximately 80,000 barrels.

Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, P.E.

Enc. HNE/rp

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O & G CONS. COMM.

FENIX & SCISSON, INC.

SEOS EAST FIFTEENTH STREET TULSA, OKLAHOMA

PLEASE REPLY TO: P. O. Box 15609 Tulsa, Oklahoma 74115

July 30, 1973

PHONE (918) 835-9471 TWX NO. (910) 845-2108 Cable Address: Fenson Tulsa

Mr. W. E. Allen
Director, Enforcement Section
Arizona Oil & Gas Conservation Commission
4515 N. 7th Ave.
Phoenix, Arizona 85013

Dear Bill:

Per our discussions last week in Phoenix, I am attaching some general information regarding the Holbrook storage wells.

Al Medley will continue to work with you very closely on the Cal Gas Storage Project west of Phoenix.

Yours very truly,

Kermit Allen

Chief Design Engineer

KA/sd

Attach.

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September 24, 1970

MEMO TO: Files (Suburban Propane)

FROM:

Kermit Allen

SUBJECT: Status of Holbrook, Arizona Storage Project

While at Eminence on September 21, 1970 I visited with a Mr. Bill Hicks who is Vice President of French Well Surveys, Inc. Mr. Hicks was on his way to Arizona to run logs in Eagleton's Holbrook storage wells.

About a year ago Suburban asked F&S to submit a proposal to construct salt storage at Holbrook, Arizona. We did submit a proposal; however, while I was in Pomona, California, reviewing our proposal with Mr. Dave Shaeffer, Mr. Eagleton arrived and told Suburban that his financial position had improved and that he would construct the storage terminal and lease storage space to Suburban. Suburban agreed to Eagleton's statement and told me that if he were unsuccessful in this venture Suburban's only loss would be a year's time--in which case Suburban would then construct their own caverns.

On September 23, 1970 I called Dave Shaeffer (Suburban) and obtained the following information:

- 1. About three weeks ago Eagleton called Shaeffer and stated he had 100.000 barrels of storage space ready.
- Suburban injected 5,000 barrels of propane and none could be recovered.
- 3. Logs were run in both wells (frac-connected) and void space was found behind the casing.
- 4. Casing was perforated -- still no propane.
- 5. Suburban is trying to decide whether to inject additional propane.

I told Dave about my conversation with Mr. Hicks and that if Mr. Hicks' story is correct it is my opinion that injecting additional propane without further defining the problem is unsound.

Dave advised that he had made long-term commitments for propane which were contingent on having storage space. Now Suburban must decide what to do next. If their decision is to construct their own storage, we will be hearing from Suburban.

KA:1w

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February 22, 1971

Memo to: Files (Williams Brothers - Arizona)

From:

Kermit Allen

SUBJECT: Potential Work - Arizona

On February 22, 1971 Mr. Keith Beard called and advised that the brine wells that were to be used for propane storage at Holbrook, Arizona, are not working out so well. Eagleton Engineering, Houston, Texas, constructed the frac-connected wells for brine production about a year ago. Suburban Propane subsequently leased the cavities for LPG storage. However, propane was injected into the cavities but not recovered. Also, hydrostatic pressure tests do not look favorable.

Keith would like to construct new LPG storage wells. A Williams Bros. meeting is scheduled for today and Keith hopes to convince his people that F&S should evaluate the existing facility. Then, if the cavities are unacceptable for LPG storage, F&S would submit a proposal to construct new wells.

Keith will call back this afternoon and advise as to future action.

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March 25, 1971

Memo to: Files (Suburban Companies #191)

From: Kermit Allen

SUBJECT: Eagleton Meeting in Houston

On March 24, 1971 I met with Mr. Norm Eagleton in Houston, Texas. The purpose of the meeting was to obtain all available information pertaining to the construction and development of the Holbrook, Arizona, brine cavity. Mr. Eagleton was quite cooperative and supplied copies of logs, drawings, drilling programs, and operating data.

Mr. Keith Beard, Williams Brothers Engineering Company, was present at the Eagleton meeting. Keith advised that Suburban Companies and Eagleton Engineering Company had reached an agreement whereby Suburban would purchase all of Eagleton's interest in the Holbrook site.

Mr. Eagleton made the following comments about the Holbrook site:

- 1. The State people are satisfied with the use of the unlined brine ponds.
- Some brine has leaked from the ponds. However, the water is brackish in this area and no complaints have been made.

The city's fresh water wells are southwest of the storage site and are replenished from a high watershed southwest of the City of Holbrook. Subsurface water movement in this area is northeast.

- 3. Propane may be trapped behind the pipe at a depth of ± 980' in Well No. 2. The French interface log shows product at this depth. This zone has not been perforated.
- 4. During the initial filling through Well No. 1 propane came to the surface outside the 7" casing. A 4" tubing string was run to ± 900' with a Baker packer set at this depth. Injection through the 4" was successful—no propane returning outside the 7".
- 5. About 6,000 barrels of propane was injected--none was recovered. However, brine salinities dropped from 21° Baumé to 14° Baumé after propane injection. (It appears some propane is in the cavity roof protecting the salt from leaching.)

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Memo to Files (#191) Page 2 March 25, 1971

- 6. Mr. Eagleton was satisfied with the geological work performed by Robert E. Lauth, Consulting Geologist, Durango, Colorado. His fee was \$1,000. However, Mr. Lauth did not consider the lower salt worth testing.
- 7. Brine could be sold to a uranium mill-if a continued source were available. Also, Mr. A. L. Hickerson, Permian Brine Sales, Odessa, Texas, indicated an interest in purchasing brine.
- 8. Mr. Eagleton stated that he would supply any additional information needed regarding the Holbrook project.
- 9. Estimated cavity size is 122,343 Bb1s.

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March 8, 1971

Hr. Keith Board Williams Brothers Engineering Co. Resources Sciences Center 321 South Boston Tulsa, Chlahora 74102

Dear Keith:

We have reviewed all available information regarding the construction of the Aritem Development Corporation brine cavities near Holbrook, Arizona. The available information consists of (1) well logs, well completion reports, and hydrostatic pressure tests results you left in our office on March 3, 1971, (2) the proposals we submitted to Euburban Companies, Inc., in January 1979, and (3) miscellaneous information obtained from telephone conversations with Mr. Dave Chaeffer the post year.

As you can see our information is quite limited and we do not have detailed records of the construction and development history. However, times you have requested our opinion as to the unability of these caverus for propose storage, we have examined the above information and offer the following comments:

- 1. The hydrostatic pressure tests run in February 1970 indicate that the covern is not pressure tight. However, conclusive proof of a leaking covern would require additional and more lengthy pressure tests.
- 2. It is our understanding that approximately 5,000 barrels of propage were injected into the brine cavity and none were recovered. This would seem to indicate covern communication with upper persus and permeable strata. However, there is the possibility that the propage is trapped in pockets in the covern roof between the two wells.
- 3. If the cavern is leaking it is not known whether the loak is around the cavern or in one of the cased wells. A caping leak could be located by setting a packer and hydrostatically testing the inside of the 7 inch 0.D. casing string.
- 4. The well completion program used is highly questionable. It would seem that the numerous porous formations above the salt caverns would have distated better casing, and, and cementing programs.

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Mr. Keith Beard Page 2 March 8, 1971

- 5. The use of a hydrocarbon blanket to control the upper leaching; i.e., leaving some salt in the cavity roof, would have enhanced the chances of obtaining a "tight" cavity.
- 6. Additional time and money would be required to determine the usability of the cavities for propose storage. However, in our opinion, chances of obtaining a usable storage cavity would probably be in the order of one out of ten.

At this time our recommendations would be to:

- 1. Obtain and evaluate the detailed construction and operating history of the wells.
- 2. Based on the above findings, recommend either additional well testing programs or abandonment of the site for propone storage.

If it is decided the existing brine cavity should not be used for propane storage, the following course of action would be required to develop new propane caverns.

- 1. Design facility.
- 2. Acquire a site (minimum of 15 acres).
- 3. Obtain permits from Oil and Gas Conservation Commission.
- *4. Confirm fresh water supply, brine disposal, and salt, by drilling a combination exploratory/disposal well.
- 5. Drill two solution wells and frac-connect (Attachments II and III).
- 6. While drilling solution wells, procure and install the surface leaching plant.
- 7. Leach storage space.

The above scope of work is tentative only and is presented only to show the more important items to be performed in order to construct sait storage space.

It is estimated that two months would be required to construct the surface plant and drill the required wells. After plant construction, 35,000 barrels of space could be created each month. Attachment I to this letter

* There is a good chance that the brine disposal well could be replaced by brine disposal in an imlined pit.

532

Mr. Keith Beard Page 3 March 8, 1971

shows the approximate time and cost to develop various volumes of storage through two frac-connected wells. It should be noted that the time required for design, selecting and procuring a site, and obtaining permits to drill be not included in the time estimate as shown in Attachment I. Very probably two additional months would be required to perform the above preliminary work.

There would be one advantage in using the Eagleton 15 acre site-time. If the surface brine pends could be used for brine disposal, and if fresh water were available, two single storage wells could be drilled and caverns developed. This means that leaching could probably begin in two months rather than the four months predicted for a new storage

Keith, please remember that the contents of this letter are based on a one-day evaluation rather than on a one to two month study which normally procedes cavity construction. If it is decided that propose storage will be constructed at Holbrook, additional manhours should be spent in refining a future course of action.

Per our discussion last Friday I am not submitting a proposal for our performance of the evaluation and construction of the facility. It is my understanding that you will meet with Mr. Scisson and work out the contract details.

Yours very truly,

Kermit Allen

KA:lw

Attachments o/s

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May 11, 1971

Memo to: Files (#191)

From: K. Allen

SUBJECT: Arizona Field Trip - Suburban Companies

On May 8, 9, and 10 Messrs. Jess Wyrick and Kermit Allen, Fenix & Scisson, and Bob Wiruth, Suburban Companies, visited the Adamana Site.

Purpose of the trip was to confirm whether brine disposal pits could be constructed on the 120 acre site which Suburban has an option to buy.

If pit construction were found to be feasible a core hole would be started immediately.

Results of the trip:

Adamana

- Construction of unlined brine pits on the existing site is not recommended due to possible contamination of local fresh water aquifers.
- 2. A 40-acre site north of the present property and located in the NE/4, SE/4 of Section 6 would be adequate for pit construction. Efforts are being made to procure this site.
- 3. Suburban authorized F&S to proceed with the 1000 foot core hole. Drilling will probably begin May 12, 1971
- 4. Test holes were augered to confirm clay thickness.
- 5. Mr. Bill Allen, Arizona Oil & Gas Commission, approved our Application to Drill the core hole.
- 6. Sonny Girwuth will submit a proposal for construction of the brine pits.

Detailed results of the trip are summarized in Attachment I to this memo.

Holbrook

On May 8, 1971 Airtex perforated the 7 inch casing in Well No. 2 at a depth of 942 feet - 944 feet and obtained some propane. However, this does not make the cavity a usable LPG storage cavern. Some of the reasons for not using this cavity for LPG storage are:

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1. Both wells have collapsed casing strings and have been perforated at the top and/or obove the salt interval.

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Memo to: Files (#191) Page 2 May 11, 1971

Re: Arizona Field Trip - Suburban Companies

It is questionable whether brine return strings could be run through the 7 inch to the cavity bottom.

- The shale roof has caved 60 feet above the top of the salt in Well No. 2.
- 3. In our opinion the cavern has not been successfully hydrostatically tested.
- 4. If brine return strings cannot be installed very little usable storage space could be obtained.
- 5. There is a leak in the 7 inch casing somewhere above the packer.

A schematic showing the probable condition of the Airtex cavity is shown as Attachment II. The schematic is based on our conversation with Mr. Eagleton on May 8, 1971 and examination of logs run in Well No. 2 on May 8, 1971.

If our assumptions are correct only a small volume of propane is trapped in the collapsed area around Well No. 2--probably less than 10,000 gallons.

KA:1w

Attachments a/s

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July 25, 1973

Mr. Tom Martin Aritex Development Corporation 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex #1 Fee Strat
NE/SE Section 6-T17N-R21E
Navajo County
File No. 530

Aritex #2 Fee Strat SE/NE Section 6-T17N-R21E Navajo County File No. 532

Dear Tom:

Attached are the forms, Application to Plug and Plugging Report, that we discussed yesterday. Please complete one copy of each of these forms and return to this office as quickly as possible.

We would also appreciate receiving copies of any logs that have been run on either of these wells. We presently have a radioactivity log and lithologic log on each well and a caliper log on your No. 1 well. It is our understanding that other logs have been run. The other logs are the ones we would like to have copies of. Also, advise us of the approximate dimentions of the reservoir that was created underneath these wells.

Thank you for your past cooperation and we hope that we will have the opportunity of working with you in the not too distant future.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/r1b

Encs.

lcc - Norman Eagleton

September 21, 1972

Aritex Development Corporation Mr. H. Norman Eagleton, P. E. 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex Development Corporation LPG Storage Project - Holbrook

Dear Mr. Eagleton:

Thank you for your letter of September 15, 1972 outlining your tentative plans for the above storage project.

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It is our desire to cooperate with you in every way possible to enable your firm to convert this cavern into a successful operation. It is not the intent of this Commission to deter you in your efforts to complete a safe and usable reservoir for the storage of LPG, however, we are very concerned about the use of this cavern for the storage of LPG products. If your leak was in the 7" casing it could be a fairly simple matter to remedy the situation. Since apparently the leak is in the formation of the cavern itself, this seems to present an entire different situation.

This condition has been discussed at length and it has been concluded that unless you are able to satisfy this Commission of the complete safety of this operation by July 1, 1973, this Commission will deem it necessary to call a hearing requiring Aritex Development Corporation to show cause as to why this cavern should not be plugged and abandoned.

We sincerely hope, Mr. Eagleton, that the above step will not be necess sary, but this Commission is charged by law to take any measures required to safeguard the health, property, and public welfare of the citizens of this State.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/r1b

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ARITEX DEVELOPMENT CORPORATION

301 SHARPSTOWN BANK BLDG. HOUSTON, TEXAS 77036

PHONE (713) 771-6343

OPERATING FACILITIES
AT
HOLBROOK, ARIZONA

September 15, 1972

Mr. W. E. Allen, Director Enforcement Section Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona 85013

Dear Mr. Allen:

We have received your letter of September 14. We have not conducted the tests we planned for July for two reasons. First, we have been unable to shake Tom Martin loose from some work that he is doing in Kentucky. Tom is much more familiar with the situation in Holbrook than anyone else we have and I would like to have him present when we conduct the tests. The second reason is that we were unable to interest an owner of propane to use the storage this summer and so there was no pressing need to conduct the tests. We feel that the longer we wait to apply the test pressure, the better chance we will have of a successful test.

When we do conduct the tests your office will be notified so that you can have someone present as a witness.

Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, P.E.

HNE/rp

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September 14, 1972

Mr. Norman Eagleton, President Aritex Development Corporation 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex Development #1 Fee Strat NE/SE Section 6-T17N-R21E Navajo County Our File #530 Aritex Development #2 Fee Strat SE/NE Section 6-T17N-R21E Navajo County Our File #532

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Dear Mr. Eagleton:

In your letter dated January 24, 1972 you stated that you plan to conduct tests on your No. 1 well to determine if the cavern still had a leakage problem. These tests were to be made in June or July of this year. Since we have had no word from your regarding this situation, will you please advise this office of your plans for this storage reservoir.

It is the desire of this office to witness any test that you may make in connection with this leakage problem.

We would appreciate an early reply.

Very truly yours

W. E. Allen, Director Enforcement Section

WEA/rlb

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ARITEX DEVELOPMENT CORPORATION

301 SHARPSTOWN BANK BLDG.

HOUSTON, TEXAS 77036

PHONE (T13) TT1-6343

OPERATING FACILITIES
AT
HOLBROOK, ARIZONA

January 24, 1972

Mr. W. E. Allen, Director Enforcement Section Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona 85013

Dear Mr. Allen:

We have received your letter dated January 21, 1972, wherein you indicated the Commission presently considers our wells near Holbrook to be temporarily abandoned.

As you have been informed, when we apply pressure of 60 psig at the well-head of Well No. 1, there is slight leakage in our cavern which we have measured to be 1.5 gallons per minute. When there is no pressure applied at the wellhead there is no leakage. We ran several logs late last summer to determine where this leakage was occurring. We were unable to pin down the exact location. Subsequent to analysis of these logs our consulting geologist advised us to leave the cavern stagnant through the winter and there would be a good chance for the leak to heal due to crystallization of the brine solution in the leak channel.

Therefore since September, 1971, the cavern has been stagnant and it is planned to leave it stagnant until June or July, 1972. At that time we will conduct tests to determine if the leakage has been stopped as anticipated. Even if the leakage has not stopped the cavern will still not be abandoned. If necessary, the next step will be to squeeze Well No. 1. We have definitely established that no leakage occurs at or adjacent to Well No. 2. The slight leakage we have experienced was occurring at or adjacent to Well No. 1. We did not choose to squeeze Well No. 1 in September because we were apprehensive about damaging it to the point where it could not be utilized as part of our injection system. However, if it must be squeezed next summer and is damaged to the point where it is not useful as an injection well, the wellhead and tubing in Well No. 2 will be revised so that it can be used to inject and recover product from the same well-ECEIVED

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Mr. W. E. Allen Page 2 January 24, 1972

This was not done last September because this method of operation could substantially reduce our storage capacity and in addition, we have no product to inject this winter.

As you can see, we have not abandoned these wells and we do not intend to abandon them. When we get ready to run our test next summer, we will notify the commission so they can have a representative present if desired.

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Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, President

HNE/rap

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OFFICE OF

Gil and Cas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

January 21, 1972

Mr. Norman Eagleton, President Aritex Development Corporation 301 Sharpstown Bank Building Houston, Texas 77036

Re: Aritex Development #1 Fee Strat NE/SE Section 6-T17N-R21E Navajo County Our File #530 Aritex Development #2 Fee Strat SE/NE Section 6-T17N-R21E Navajo County Our File #532

Dear Mr. Eagleton:

This office has attempted to contact Mr. Tom Martin regarding your future plans for the above referenced project. Since we have been unable to contact Mr. Martin and have recently visited this project, and determined that there has been no activity for quite some time, it would be appreciated if you would advise this Commission of your future plans regarding this project.

The Commission presently considers the #1 and #2 Wells, originally drilled to be used in connection with the storage project, to be on a temporary abandon basis. It is against the Rules of the Commission to allow a well to maintain a temporary abandon status over an indefinite period. Any information that you may furnish regarding this project will be appreciated.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

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ARITEX DEVELOPMENT CORPORATION

301 SHARPSTOWN BANK BLDG. HOUSTON, TEXAS 77036

PHONE (713) 771-6343

OPERATING FACILITIES
AT
HOLBROOK, ARIZONA

June 17, 1971

Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Attention: Mr. W. E. Allen, Director Enforcement Section

Gentlemen:

Re: Aritex #1 Fee Strat

NE/4 SE/4 Sec. 6-T-7N-R21E

Navajo County

Your File #530

Aritex #2 Fee Strat

SE/4 NE/4 Sec. 6-T-7N-R21E

Navajo County

Your File #532

As per your request, we are enclosing Well Completion or Recompletion Report and Well Log on the above referenced subject.

Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, President

Enclosure HNE/rap RECEIVED

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June 11, 1971

Mr. H. Norman Eagleton Eagleton Engineering Company P. O. Box 36117 Houston, Texas 77036

Re: Aritex #1 Fee Strat NE/4 SE/4 Sec. 6-T17N-R21E Navajo County Our File #530 Aritex #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Navajo County Our File #532

Dear Mr. Eagleton:

Thank you very much for the logs and information that you recently submitted on the above referenced wells.

It is necessary that a Well Completion Report on each well drilled in the State be filed with the Commission on the Commission's own form (Form 4). Our Files do contain completion information furnished by Robert Laugh; however, it is not on our forms. We are enclosing copies of this information. Please have someone in your organization complete Form 4 on each of your wells, sign and return to this office.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA: jd Enc.

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ARITEX DEVELOPMENT CORPORATION

301 SHARPSTOWN BANK BLDG.

HOUSTON, TEXAS 77036

PHONE (713) 771-6343

OPERATING FACILITIES
AT
HOLBROOK, ARIZONA

June 9, 1971

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Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Attention: Mr. W. E. Allen, Director Enforcement Section

Gentlemen:

Attached are Sundry Notice and Reports on Wells for Aritex No. 1 Fee Strat and No. 2 Fee Strat, indicating the only work done on the two wells since the summer of 1970, except for the washing that was done between September, 1970, and February, 1971.

We are unable to fill out the details required by the Well Completion Report because we gave our files containing this information to Suburban Gas in early April, 1971, and they have not returned it to us. However, our recollection is that all this information was furnished you last summer. We did not furnish well logs at that time and these logs are attached herewith. As you may know, we are not doing anything with our wells at this time. We have offered to sell them to Suburban but they have not yet given us a definite answer. We haven't decided exactly what we will do if they do not purchase them but we definitely will not abandon the wells.

If you need additional information please advise.

Sincerely,

ARITEX DEVELOPMENT CORPORATION

H. Norman Eagleton, President

cc: Mr. Tom Martin

Attach. HNE/rap

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June 7, 1971

Mr. H. Norman Eagleton Eagleton Engineering Company P. O. Box 36117 Houston, Texas 77036

Re: Aritex #1 Fee Strat NE/4 SE/4 Sec. 6-T17N-R21E Navajo County Our File #530 Aritex #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R&1E Navajo County Our File #532

Dear Mr. Eagletons

We have several times in the past requested that you furnish this office with Completion Reports, Form 4, on the above referenced wells. We have also discussed this with Mr. Tom Martin; but, as of this date we have had no response from your office. It is necessary that these Completion Reports be received in this office at a very early date. We also need copies of any logs that may have been run on these wells.

It is also necessary that you furnish this office information regarding the recent testing that you have done on these wells, the perforations, propage recovery, and so forth. This information will be furnished on our Form 25, Sundry Notices and Reports on Wells.

We look forward to your early cooperation on the above request.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEAIJd cc: Mr. Tom Martin

April 19, 1971

Mr. H. Norman Eagleton
Eagleton Engineering Company
P. O. Box 36117
Houston, Newas 77036

Re: Aritem 61 Fee Strat NE/4 SE/4 Sec. 6-T17H-E21E Navajo County Our File #530 Aritex #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Navajo County Our File #532

Dear Mr. Ragleton:

Please refer to our letter dated March 29, 1971 requesting Completion Reports on the above referenced wells and also copies of any and all logs that were run on these wells.

Please be advised that you will not be able to secure a release of the bond covering these two wells until this information has been received by this office.

Very truly yours,

W. E. Allen, Director Enforcement Section

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March 29, 1971

Mr. H. Norman Eagleton Eagleton Engineering Company P. O. Box 36117 Houston, Texas 77036

Re: Aritex #1 Fee Strat
NE/4 SE/4 Sec. 6-T17N-R21E
Navajo County
Our File #530

Aritex #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Navajo County Our File #532

Dear Mr. Eagleton:

Please furnish this office with copies of the Completion Report, Form 4, on the above referenced wells. We would appreciate receiving this report as quickly as possible. Also, include any information that you might have pertaining to the logging and testing of this reservoir.

Very truly yours,

W. E. Allen, Director Enforcement Section

WKA:jd Enc.

August 14, 1970

Mr. H. Norman Eagleton Eagleton Engineering Company P. O. Box 36117 Houston, Texas 77036

Re: Aritex Development #1 Fee Strat NE SE Sec. 6-T17N-R21E

Navajo County Our File #530 Aritex Development #2 Fee Strat SE/4 NE/4 Sec. 6-T17N-R21E Navajo County Our File #532

Dear Mr. Eagleton:

On a recent visit with Tom Martin in Holbrook, the necessity of submitting our Form #24, Transporter's and Storer's Report, was discussed. Hr. Martin told me that these reports would be prepared by your office and requested that a supply of the forms be forwarded to you.

Once storage operations are actually in progress at your Rolbrook installation, this monthly report will be required indicating the amounts of LPG injected and/or any amounts withdrawn. Your cooperation in furnishing this information will be appreciated.

Very truly yours,

W. E. Allen Director, Enforcement Section

WEA:jd Enc.

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Eagleton Engineering Co.

P. O. BOX 36117 HOUSTON, TEXAS 77036 Phone: (713) 771-6343 Cable: EAGENG

June 29, 1970

Mr. John Bannister, Executive Secretary Office of Oil and Gas Conservation Commission State of Arizona Room 202, 1624 West Adams Phoenix, Arizona 85007

Dear Mr. Bannister:

We received your letter of June 23, 1970, requesting the current status of our proposal to drill a water well at Holbrook. The reason we have not followed through obtaining a bond to cover this well, is a decision made in May to make only absolutely essential expenditures on this project until all testing of the cavern has been completed. As now-planned, we will hydrostatically test the cavern on July 13, and begin injecting some propane within a week thereafter, if the hydrostatic test is satisfactory. After injecting several hundred barrels of propane into the cavern, we will try to get 10,000 gallons (one truck load) of propane out to make sure it is recoverable. When all of this has been completed satisfactorily, we will again consider the need for the water well.

If you have any additional questions, please advise.

Sinerely,

EAGLETON ENGINEERING COMPANY

Magleton H. Norman Eagleton

cc: Tom Martin HNE:rap

STATE COMM.

Eagleton Engineering Co.

P. O. BOX 36117 HOUSTON, TEXAS 77036 Phone: (713) 771-6343 Cable: EAGENG

March 25, 1970.

Oil and Gas Conservation Commission State of Arizona 1624 West Adams (Room 202) Phoenix, Arizona 85007

Attn: Mr. John Bannister

Re: Aritex Development #1 Fee Strat NE/4 SE/4 Section 6 T17N, R21E, G & SRM

> Navajo County Our File #530

Aritex Development #2 Fee Strat

SE/4 NE/4 Section 6 T17N, R21E, G & SRM

Navajo County Our File #532

Dear Mr. Bannister:

In response to your request of March 16, 1970, the following information is submitted:

	#1 Fee Strat	#2 Fee Strat
	r077 /	5 077. 5
Surface Elevation	5077.6	5071.5
Top of Coconino	138	139
Top of Supai	775	774

According to our consulting geologist, Mr. Robert E. Lauth, there is good water potential in river gravel at depths between 121 and 138 feet and in a relatively porous section of the Coconino Sandstone between 138 and 160 feet.

We plan to drill a water well within the next 30 to 60 days and will send the analysis of the water to you as soon as it is available.

Sincerely,

EAGLETON ENGINEERING COMPANY

H. Norman Eagleton

HNE:mjp

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206 CENTURY BLDG.

OFFICE 247-0025 RESIDENCE 147-3190

ROBERT E. LAUTH GEOLOGICAL CONSULTANT P. O. BOX 776 DURANGO, COLORADO 81301

March 23, 1970

Four Corners Sample Cut Assoc. 641 West Broadway Farmington, New Mexico 87401

Re: Samples, 40 to 1140 feet Core chips 1005 to 1110 feet Aritex Davelopment Corp. No. 2 Fee-Strat SENE Sec. & T17N, R21E, Novajo County, Arizona

Gentlemen:

Early Saturday morning Merch 21, 1970, I left three boxes, two full and one with three samples in it, at your back door with a note that details stc. would follow.

Please make the necessary sample outs as required by the Arizona Oil and Gas Conservation Commission. Also make one cut for Aritex and send it with the invoice (three copies) to Aritex Development Corp. P. O. Box 187, Holbrook, Arizona 86025.

Also, diesal oil was used as a drilling fluid from 865 to total depth. When these samples are cut from 950 to total depth, please be careful on washing. There is salt in the samples and water will dissolve it. This is also true for the core chips.

Thank you.

Robert E. Lauth

Arizona Oil & Gas Conservation Comm. 1624 West Adems Rm. 202 Phoenix, Arizona 85007

cc: Aritex Development Corp. P. D. Box 187 Holbrook, Arizona 86025





UNITED STATES FIDELITY AND GUARANTY COMPANY

3401 FANNIN STREET, P. O. BOX 8426

HOUSTON, TEXAS 77004

TELEPHONE: 713/JACKSON 5-1551

K. C. PTOMEY MANAGER

JOHN F. ROUGAGNAC ASSISTANT MANAGER

March 16, 1970

JOSEPH S. KNIGHT SUPERINTENDENT - CLAIMS

STATE O & G COMM

Mr. John Bannister **Executive Secretary** Oil and Gas Conservation Commission State of Arizona Room 202, 1624 West Adams Phoenix, Arizona 85007

Re: Eagleton Engineering Co. Bond No. 2940130-153-70

Your No. 532

Dear Mr. Bannister:

Enclosed is copy of a rider which we have requested our Agent to have signed on behalf of Eagleton Engineering Co..

As soon as this has been accomplished we will have the rider countersigned and filed with your Department.

Fide ity-Surety Dept.

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U. S. F. & G.

Houston 46 (7-68)

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To be attached to and form part of Performance Bond Number 29-0130-153-70, in favor of the State of Arizona and the Oil and Gas Conservation Commission, on behalf of Eagleton Engineering Co., as Principal, and United States Fidelity and Guaranty Company, as Surety, in the penal sum of Five Thousand and No/100(\$5,000.00) Dollars, dated Harch 2, 1970.

It is hereby understood and agreed that effective March 2, 1970, the description and location of Well No. 2 is amended to read as follows:

Aritex No. 2 Well NE/4 of Section 6, T17N, R21E, Navajo County, Arizona

All other terms and conditions of the bond to remain as originally written.

Dated at Houston, Texas, this 18th day of March, 1970.

EAGLETON ENGINEERING CO.

UNITED STATES PIDELITY AND GUARANTY COMPANY

March 16, 1970

Mr. Norman Eagleton P. O. Box 36117 Houston, Texas 77036

Re: Aritex Development #1 Fee Strat NE/4 SE/4 Section 6

T17N, R21E, G & SRM Navajo County Our File #530 Aritex Development #2 Fee Strat SE/4 NE/4 Section 6 T17N, R21E, G & SRM Navajo County Our File #532

Gentlemen:

The Commission will very much appreciate it if you would immediately furnish us for our records the formation tops encountered in the captioned wells. Further, should you have made any analysis of underground waters encountered, we would appreciate this information also.

It will be necessary when your water well is drilled that analysis of all waters encountered be furnished to this Commission. This, of course, will be the basis of comparison should there be any claims of pollution due to your operations. Consequently, this Commission considers this information vital. Your cooperation will be appreciated.

Sincerely,

John Bannister Executive Secretary

JB:jd

cc: Tom Martin, Holbrook, Arizona

blind c.c. to Dr. E. L. Gillespie, U.S.G.S. Flagstaff 86002

March 13, 1970

United States Fidelity & Guaranty P. O. Box 8425 Houston, Texas 77004

Attention: Mr. Edward L. Purcell, Jr. Bond Superintendent

Re: U.S.F. & G. Bond No. 29-0130-153-70 Our File #532

Gentlemen:

On March 2, 1970, you issued the captioned bond to this Commission on behalf of Eagleton Engineering Company to cover the operations on the Aritex No. 2 Well located in the SE/4 NE/4 of Section 6, T17N, R21E, Navajo County, Arizona. The bond as issued gives an incorrect location for this well; namely, the bond sites the well as being in the SE/4 of Section 6. You are requested to issue a rider correcting the location well from the SE/4 of Section 6 to the NE/4 of Section 6.

We are issuing our permit, however, and accepting this bond as written relying on your description of Well No. 2. Your early compliance to this will be appreciated.

Sincerely

John Bannister Executive Secretary

JB:jd cc: Mr. Tom Martin cc: Mr. Norman Engleton March 13, 1970

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Mr. H. Norman Eagleton Eagleton Engineering Company P. O. Box 36117 Houston, Texas 77036

Re: Aritex Development Corporation #2 Fee Strat SE/4 NE/4 Section 6 T17N, R21E, G & SRM Our File #532

Dear Mr. Eagleton:

Enclosed please find our Receipt No. 2866 covering the \$25 filing fee, your Application for Permit to Drill which has been approved, and our Permit To Drill No. 532. Instruction sheets pertaining to samples and reports required by this office have been furnished you in previous correspondence.

Sincerely,

John Bannister Executive Secretary

jd Enc.

C

March 13, 1970

Mr. Don H. Miller 2753 Stardust Court A-10 Jacksonville, Florida 32211

Dear Mr. Miller:

Thank you for your letter of March 5, 1970. For your information Eagleton Engineering Company has been permitted for two wells in Mavajo County, Section 6-T17N-R21E. The first well, our file #530, is located in the NE/4 SE/4 and the second well, our file #592, is located in the SE/4 NE/4 of Section 6. Eagleton Engineering Company's address is P. O. Box 36117, Houston, Texas 77036.

Mr. O. R. Thoursen has also permitted two wells with this Commission. The first well is the Thoursen #1 Santa Fe located in RE/4 SW/4 of Section 27-T21X-R26E, Apache County, and is our File #504. The second well is the Thoursen #1 Navajo 1767 located in NE/4 SW/4 of Section 25-T21N-R25E, Apache County, and is our File #505. No information can be released on these wells at

If there is any other information we can provide, please

Sincerely,

John Bannister Executive Secretary

jđ

2753 Standingt Ct A=10 Jacksonville, Fla 32211 March 5, 1970

Oil and Gas Conservation Commission State of Arizona 1624 West Adams Street Phoenix, Arizona

Atten: Mr. John: Bannister, Secretary

Dear Mr. Bannister:

Lindly be advised I would greatly appreciate if I could be advised if Sapleston Engineering is conducting a drilling aperation in T. 17K. R. 21E., section 6, Pavajo County, Arizona. Could I be furnished the address of this Operator.

Last year at one time I understood Mr. O. R. Thoursen of Chicago filed for intention to drill in T. 20N., R. 25E., and R. 26E., Apache County, Arizona but have read nothing further on this. I would appreciate if I could be furnished any information relative to this matter at the convenience of the Commission.

Thank you for this and past courtesies and am enclosing a self addressed stamped return envelope for your convenience.

Respectfully yours

Son Miller

Fon H. Miller

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STATE O & G

CONS. COMM.



Oil and Gas Conservation Commission

STATE OF ARIZONA ROOM 202 1624 WEST ADAMS

PHONE: 271-5161

March 12, 1970

Memo from John Bannister

Re: Files 530 and 532 Aritex No. 1 and No. 2

On March 10 and 11, 1970, the storage project involving these two wells has been inspected. Mr. Tom Martin of Eagleton Engineering Company and Mr. James Baldry of Aritex have been contacted. Eagleton Engineering Company is setting up the storage project and Aritex is a corporation which has been formed to manage the propane project. Mr. Martin represents Eagleton and Mr. Baldry is being employed by Aritex.

As to Well No. 1, Permit No. 530, a small cable tool rig has been brought in and is currently drilling out cement. After the hole has been opened, Hallibuton will run a wire line to determine accurately total depth and 4-1/2" tubing will then be set to approximately 1150', which will bring this tube down to an anahydrite section approximately 40' below the top of the salt. This 40' section is both overlain and underlain by anahydrites and should prove ideal for storage purposes.

The No. 2 well, Permit 532, has been drilling 400' to the north of Well No. 1, currently at a total depth of 760'. As I left the site there had been a twist off and 240' of drill pipe and the drill bit was left in the hole; however, due to the nature of the twist off, it should be easily recovered by a spear.

Initially, Well No. 2 will be drilled to a depth of approximately 1200' and 7" casing set through the total salt zone to be used. A collar and cement plug will be set at bottom hole below the lowest analydrite section. The well will be perforated into the lower salt zone. It is intended to use a fresh water frack by Halliburton through these perforations until communication is

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Page 2 Memo from Mr. Bannister March 12, 1970

established with Hole No. 1. The brine will be taken at this time through the 4-1/2" tubing in Well No. 1 and will be temporarily ponded. Once the storage cavern has been created, Well No. 2 will also have 4-1/2" tubing run. At this time, brine water will be injected through Well No. 1 into a storage cavern to displace propane for production purposes.

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Propane will be brought to the storage area by tank car from the Cineza plant east of Gallup, New Mexico. Holbrook seems to be the central distribution point for propane in Arizona and this location seems to be ideal for this purpose. If the project is successful, Southern Pacific will extend a spur from the railroad located some 100 feet from the southern boundary of Aritex property. Propane will be moved both by tank car and truck.

If the initial phase now being undertaken is successful, it is intended to immediately create three such underground storage caverns. Each cavern will involve the use of two wells as outlined above. Each cavern will be approximately 400 feet long by 80 feet wide by 40 feet high and will contain approximately 150,000 barrels each of propane. A permanent brine pond of approximately 200,000 barrels capacity will be maintained. This brine will be used to displace the propane in storage. It is decided to use a saturated solution of brine, inasmuch as when introduced into the cavern it will not enlarge same.

Prior to contacting Mr. Martin and Mr. Baldry, I contacted Mr. W. S. Carpenter, City Manager of Holbrook. Mr. Carpenter has been thoroughly advised as to the proposed plans and progress of this project. Mr. Carpenter advises that there are no fresh water wells within a three mile are of the project and that the city is satisfied that no contamination can or will occur from the ponding operations. Mr. Carpenter joined me in my initial inspection of this project.

As a result of my meeting with Mr. Martin and Mr. Baldry, this Commission has ordered that the necessary well signs be erected and maintained, and has again advised that all wells drilled for this project, regardless of their purpose, must be permitted by this Commission and samples collected.

Page 3 Memo from Mr. Bannister March 12, 1970

The Commission insisted that some method of evacuation of the contents of the large permanent brine pond be established so that it could be emptied in the event of any emergency. In the event of a severe emergency the contents of the pond could be put back into underground storage. This, of course, would necessitate a loss of the stored propane. The Commission suggested that the pond, in effect, be cut in half so that in the event of emergency the contents of the pond in either section could be transferred to the other section and any repairs be made that might be necessary. It was further suggested that, in establishing the bottom of the permanent pond, the recovered brine be evaporated and the salt worked by sheephead well into the bottom. These suggestions will be followed.

Mr. Martin outlined a proposal to insert 6 to 7" piping from his pump into both sections of the pond, which would give him a method of transferring the contents from one section of the pond to the other. The suggested division of the pond was most favorably received in that it will give the company a greater control of the brine and percentage concentration plus give the company a readily available means of doing any repair work necessary to the pond without undue loss of its contents.

I would like to say Mr. Martin and Mr. Baldry were most cooperative with this Commission and I feel that their continued cooperation is assured.

Please see File 530 for photographs of the above-captioned wells and temporary ponds, also for initial plans concerning proposed wellheads and initial ponding of water.

John Bannisler

(± 1200' T.D. 1+ 30 WELL NO. 1 _95/8" CASING -138, 30 -12 1/4" HOLE 4 /2" TUBING -83/4" HOLE 7" CASING i ± 1200' T.C 1+30 WELL NO. 2 95/8" CASING -12 1/4" HOLE 83/4" HOLE - CEMENTING PLUG 7" CASING FLOAT COLLAR GUIDE SHOE PERFORATE

SOLUTION WELL SCHEMATIC PREPARATORY TO FRACTURING

FIG. 1

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FIG. 2

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PROPOSED DEVELOPMENT OF SOLUTION WEL

A3TAW FRESH WELL NO. I #500 41/2" TUBING ~95/8" CASING " CASING LEGEND: + + SALT PROPANE BLANKET STORAGE CAVERN SHALE **GETARUTAS** BRINE #532 L95/8" CASING 7" CASING

March 12, 1970

Mr. Norman Eagleton P. O. Box 36117 Houston, Texas 77036

Re: Aritex Well No. 1 and Well No. 2 and Proposed Propane Underground Storage Project, Holbrook, Arizona Our Files No. 530 and 532

Dear Mr. Eagleton:

First, I would like to express my appreciation for the many courtesies and cooperation I received from Mr. Tom Martin of your organization and Mr. James Maldry of Aritex on the occasion of my recent visit to the captioned project.

This Commission was delighted to learn that your organization has developed a wonderful relationship with the citizens of Holbrook as well as with the city administration. This, undoubtedly, will have great benefit to the project you are undertaking.

As a result of my meeting with your representatives, this Commission requests that you take the following actions:

f. Immediately, there should be erected a sign at each of the captioned wells and at all future well sites, which sign shall contain the name of the well, its quarter-quarter, section, township and range location, and the state permit number. Upon completion, a similar identification sign should be permanently attached to the wellhead.

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Page 2 Mr. Norman Eagleton March 12, 1970

2. In order to avoid any misunderstanding, any and all wells regardless of purpose, which are drilled in connection with this project must be permitted by this Commission.

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- 3. It is my understanding that you intend to construct and permanently maintain a pond capable of containing 200,000 barrels of salt brine for this operation. As a part of your planning for this pond's construction, it will be necessary that this pond can be quickly emptied in the event of an emergency which may threaten surface or sub-surface pollution. It is suggested that in establishing this pond it be divided in half and arrangements made for the transfer of the contents from one section to the other. This ponding operation and preparation of the pond bottom for sealing purposes has been fully discussed with Mr. Tom Martin. The prime requirement here is that the pond be capable of being evacuated quickly for repair if and when necessary.
- 4. This Commission must be immediately notified when any unusual loss of the contents of the brine storage pond has been detected. It is suggested that some visual means of measurement of the contents of this pond be established.

This Commission is, of course, concerned with any potential escapage of the brine stored in the ponds as a possible threat to underground fresh water; consequently, the above requirements are made. It is not our intention in any way to interfere with your operations; however, it is most necessary that all care be taken to prevent escape of your brine in any manner. Surface examination of the area where the ponding of the brine will be conducted indicates an area most favorable for this operation.

Page 3 Mr. Norman Eagleton March 12, 1970

Again, let me express my appreciation for your cooperation and help. If we may be of service or help to you in any way, please do not hesitate to contact us.

777

Sincerely,

John Bannister Executive Jecretary

JB:jd

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cc: Mr. Tom Martin

UNITED STATES FIDELITY AND GUARANTY COMPANY

PHOENIX OFFICE

3605 N. 7th AVENUE, PHOENIX, ARIZONA 85013 TELEPHONE: 602/277-4411

March 9, 1970

T. D. GIBSON

Oil & Gas Conservation Commission 1624 W. Adams Phoenix, Arizona

Bond No. 29-0130-153-70
Principal: EAGLETON ENGINEERING CO.
Amount: \$5,000.00
Effective Date: 3-2-70

Gentlemen:

Branch Office, At the request of our Houston we are attaching herewith original of the above captioned bond, properly executed and countersigned, for filing. We trust you will find same to be in proper order.

Thank you for your assistance in this matter.

Yours Sincerely,

Glenna Crum Bond Department

Henra Cum

Enclosure

CC:

See letter to USFOG, Houston to correct well location -3-13-70

Phoenix 1 (8-68)

206 CENTURY BLDO.

OFFICE 247-0025 RESIDENCE 247-3190

ROBERT E. LAUTH
GEOLOGICAL CONSULTANT
P. O. BOX 776
DURANGO, COLORADO
81301

March 6, 1970

Four Corners Sample Cut Asen 641 West Broadway Fermington, New Mexico 87401

> Re: Samples, 145 to 1100 feet Aritex Development Corp. No. 1 Fee Strat NESE Sec 6 T17N, R21E Navajo County, Arizona

Gentlemen:

On Tuesday evening March 3, 1970, I left three boxes of the above captioned samples at your back door with a note that more pertinent details and instructions would follow.

Please make the necessary sample cute as required by the Arizona Oil and Gas Conservation Commission. The billing invoice should be sent (three copies) to Aritex Development Corp. P.O. Box 187 Holbrook, Arizona 86025.

Aritex will drill one more well, the No. 2 fee Stret very shortly(about 2 weeks). I'll leave the samples when drilled with you when I come back in. Instructions for the No. 2 well is the same as on the No. 1 well.

Thank you,
Robert E. Lauth

cc Ariz. O&G Conservation Comm. 1624 West Adams Rm 202 Phoenix Ariz. 85007 cc Aritex Develop. Corp. P.O. Box 187 Holbrook Ariz. 86025



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Telegram

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JOHN BANISTER, EXECUTIVE SECRETARY /624 W adams ARIZONA OIL AND GAS CONVERSATION COMMITTEE PHOENIX ARIZ THIS IS TO CONFIRM OUR AGENCY EXECUTED IN US FIDELITY AND GUARANTY A \$5,000.00 OIL OR GAS WELL DRILLING BOND IN FAVOR OF EAGLETON BIG INEERING COMPANY AS OF 3/2/70 WITH SATE OF ARIZONA AS OBLIGEE BURTON INS AGENCY CHARLES BURTON

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8F-1201 (R5-69)

302P PST MAR 6 70 LB262 NSC4Q4 NS HSD270 NC PDF ROUSTON TEX 6 430P CST 0 JOHN BANISTER, EXECUTIVE SECRETARY

ARIZONA OIL AND GAS CONVERSATION COMMITTEE PHOENIX ARIZ THIS IS TO CONFIRM OUR ACENCY EXECUTED IN US FIDELITY AND GUARANTY ASS 3000,00 OIL OR GAS WELL DRILLING BOND IN FAVOR OF EACIETON BIG INEERING COMPANY AS OF 3/2/70 WITH SATE OF ARIZONA AS OBLIGEE BURTON INS ACENCY CHARLES BURTON S

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